







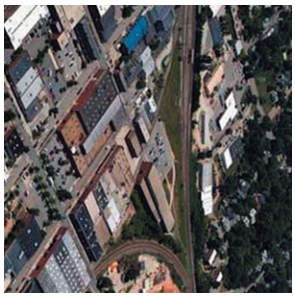
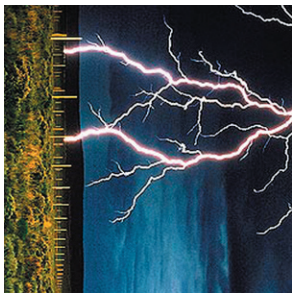











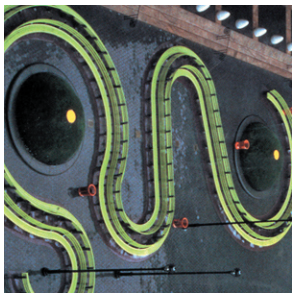


CAM

ARTSCAPE: A Sculpture. That Happens to Be. A Park.

An Environmental Art Park and Sculpture Garden in Downtown Raleigh, North Carolina.

Laura Israel | LA 404 Comprehensive Project | Spring 2006

CAM

ARTSCAPE:
A Sculpture. That Happens to Be. A Park.

An Environmental Art Park and Sculpture Garden in Conjunction with the Contemporary Art Museum (CAM) of Downtown Raleigh, North Carolina

Laura Beth Israel
April 2006

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College of Architecture and Planning
Department of Landscape Architecture

LA 404 Comprehensive Project
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CAM

ABSTRACT

"I like to think of gardens as sculpturing of space: a beginning
and a groping to another level of sculptural experience and use.
A total sculptural space experience beyond individual sculptures.
A man may enter such a space: it is in scale with him; it is real."
– Isamu Noguchi, A Sculptor's World, p. 216

Artistic expression of the land has thrived from prehistoric to current times, first as monolithic structures of the ancients, then as figurative sculptures of the Renaissance, and more recently as environmental artworks of contemporary designers. These different artistic expressions, combining art and the land, are also becoming incorporated into modern landscape architecture. This project combines the fields of outdoor sculpture, environmental art, and landscape architecture into a single synthesis of art and design for the land.

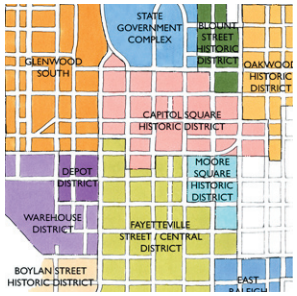
The purpose of this endeavor was to analyze the interaction of sculptures in and of the land, including sculpture gardens and earthwork projects, with their surrounding landscapes so as to discover the most beneficial design approach to art and land design. In an effort to solve this research problem a variety of methods were employed. First, historical literary references such as John Beardsley's Earthworks and Beyond and other noteworthy sources were examined. Then, current design theories and practices concerning outdoor sculpture display, as exhibited through modern sculpture parks, gardens, and earthworks, were interpreted. Finally, contemporary case studies of modern earthwork projects, including Charles Jencks' Garden of Cosmic Speculation, and urban sculpture gardens, including the Minneapolis Sculpture Garden at the Walker Art Center in Minneapolis, Minnesota, were analyzed.

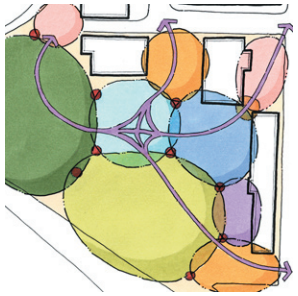
For the practical applications of this research study, an art park was designed for a site and its surrounding context of downtown Raleigh, the state capitol of North Carolina. Located in the currently redeveloping warehouse district of the southwest edge of downtown, this site also borders a planned light rail line and station that play into the development's plan. This site operates in conjunction with and adjacent to the fledgling Contemporary Art Museum (CAM) of Raleigh, a non-collecting institution promoting art education and collaboration within the community. Using a program established from the needs of the art museum and the city parks department, four basic goals of space, aesthetics, connection, and accessibility led the design of this site. In addition to the land art garden, a cultural arts program, consisting of design elements and features throughout the district, was established for the neighborhood to promote cultural identity, historical heritage, and downtown redevelopment. With a variety of differing spaces and places, this arts garden works with the Contemporary Art Museum of Raleigh to provide a community park that benefits everyone.

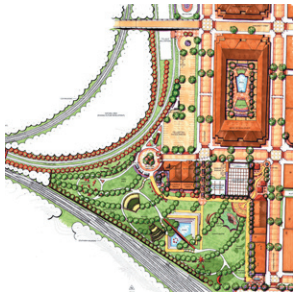




TABLE OF CONTENTS







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Thank you also to my wonderful husband, Chris, and to the rest of my family for supporting and encouraging me through everything.

INTRODUCTION

Nature and art have always maintained close relationships throughout the history of time, from ancient artwork to figurative sculpture and modern earthworks. These artistic works, over time, have exhibited a potential to be combined together in a form of landscape architecture. The garden can be a form of sculpture, as Isamu Noguchi desired in 1968, demonstrated through the integration of modern sculpture gardens, current environmental works, and contemporary landscape architectural projects.

This project analyzed the interaction of sculpture in and of the land with their surrounding landscapes and combined the areas of outdoor sculpture, environmental art, and landscape architecture into a single synthesis of art and design for the landscape. The research aspect of this study illustrated that outdoor sculpture interacts with its surroundings in ways that influence the participant's perception of the work, that urban and rural sculpture sites contain a different set of beneficial design characteristics, and that while there may not be one particular design approach to outdoor sculpture, there may be a best design approach for a given set of circumstances.

Information to prove these hypotheses was gathered, analyzed, and interpreted through detailed research and design processes. These processes included the identification of clients and their needs, selection of a suitable site, listing of goals and objectives, development of a project program, designing of concepts, and the synthesis of a final design solution.





HISTORICAL PERSPECTIVE

The history of art, sculpture, and landscape design describes a process of creation, separation, and reconnection between the differing forms of artistic expression. While the narration of the following history may seem excessive in its recountal of ancient artworks, historical sculptures, and modern landscape design, it attempts to portray an intimate and cyclical connection between artistic expressions of the land from prehistoric times through the present.

The History of Art in the Landscape

From prehistoric times to the present, man has been inextricably correlated to nature and its essence. Both protective and destructive to its counterpart, man has, over time, displayed his relationship to nature in a variety of manners. One of the most essential methods of this expression to nature has been through artistic measures in forms ranging from primitive rituals to elaborate structures (Beardsley, Earthworks 2). Not separate from nature, the sacred has also played a vital role in this complex relationship of man and nature. In fact, most of ancient artwork has shown reverence to the sacred in one form or another. The stone constructions of the Anglo-Saxons, the burial structures of the Egyptians, the temples of the Greek, the gardens of the Asians and the mounds of the American Indians all represented tributes to their deities (Turner). The fact that differing cultures have shown dissimilar methods of approaching their deities is evidence of their separate cultural beliefs regarding nature (Kassler 5). These differing cultural beliefs have become even more pronounced as time has progressed, cultures have intermingled, and art has transformed.

When artistic expression was freed from the confines of religious content, it took upon its own forms and manifestations (Turner). Following each culture's relationship to nature, artistic expressions in the form of landscape differed between societies. In the West, Europeans' strong sense of place in the universe as master of creation led to grand gardens filled with Cartesian angles, straight axes, and perfect symmetries that showed man's complete dominance over subordinate nature (Kassler 5). Related artwork included allegorical and figurative sculptures displayed in visually dominating positions. In the East, where man had "no divine assurance of dominion over the earth," Asians' attempted to become one in harmony with the universe in a place where everything was related to one another; rocks, plants, and habitats were all designed in an attempt to obtain the "life movement of the spirit though the rhythm of things" (Kassler 5). Related artwork included bonsai gardens and painted silk screens of landscape scenes (Bianco). Both in the East and in the West, cultural artwork displayed the society's corresponding relationship to nature through the use of differing works of art.

In European countries during the Renaissance, art became a status symbol of power, wealth, influence, and culture for those able to commission and collect important pieces. Many forms of artwork were collected such as paintings, sculptures, and decorative arts; but of these, sculpture proved to be the most powerful. Canvas was inexpensive and short-lived, but stone, especially marble, exhibited one's wealth and was truly worthy of patronage. Because sculpture was now available for personal appreciation, it became a part of interior design (Turner). When the exteriors of villas and estates became extensions of the interiors, through the use of gardens, axes, and outdoor rooms, sculptures followed as well (Turner). Mainly located at the intersections of important pathways, on the center of large terraces, and at the termination of impressive sightlines, figurative sculptures, such as nude females and protective animals, dominated the historical era.

This pattern of outdoor sculpture continued until the advent of Romanticism in the late eighteenth century, where naturalistic expressions of the landscape were preferred over artificial methods. While sculpture manifested new forms of emotional expression, it still maintained its old outdoor positions, at the end of vistas and informal sightlines (Vishny). In the mid-nineteenth century, the Victorian style gained popularity and sculptures of antiquity reemerged, as they enhanced the eclectic fashions of the period. At this same time, sculptures began to be commissioned for specific locations including public buildings and private gardens, as examples of the first modern-day sited sculptures (Turner). The

eclectic Victorian era, highlighted by the public's fascination of historical, foreign, and exotic objects, also brought about the popularity of the 'museum,' including examples such as the Louvre in Paris, the British Museum in London, and the Smithsonian in Washington DC. These museums, among many others, popularized the 'gallery' approach to art and sculpture display, where works were shown in specific settings and collections, separate from one another.

The Introduction of Sculpture Gardens and Earthworks

The museum style of art collection remained primarily the only method of artistic display until the mid-twentieth century, when a group of American artists rebelled against the dominating style and created a new artistic format for sculpture. Known as earthworks, these new artworks were more than sited sculpture; they were pieces that were "inextricably bound to their sites and [took] as a large part of their content a relationship with the specific characteristics of their particular surroundings" (Beardsley, Earthworks 7). These artists, tired of the traditional techniques where acquiring institutions displayed artwork, valued only as commodities, in the typical gallery setting (Beardsley, Earthworks 13), set out to redefine sculpture without the capital 'S' (Clay 296). They did this in the Western American desert where space and land were plentiful. Here, these new environmental artists could create art without the binding restrictions of galleries and patrons (Beardsley, Earthworks 13).

Although not the first artists to venture outside the traditional gallery space, Michael Heizer, Robert Smithson, Walter De Maria, and Robert Morris were credited with the establishment of the modern earthworks movement popularized in the late 1960s (Beardsley, Earthworks 7). At the trend's beginning, Michael Heizer constructed Double Negative in the desert of Nevada, which consisted of two horizontal wedge cuts across a natural gorge that together created a single trough across the depression. Robert Smithson followed, more successfully, with Spiral Jetty, which was built in the form of a collapsing spiral on the edge of Great Salt Lake in rural Utah. Spiral Jetty embodied the earthworks movement because it not only created art within the landscape, but it also incorporated multiple contextual details into its design. De Maria's Lightening Field and Morris's Observatory both dealt with the ephemeral processes of nature, lightening and solar movements respectively, and incorporated new dimensions of design into the earthworks movement (Beardsley, Earthworks 12-28).

Artists of the earthworks movement found inspiration from several vastly differing sources, including historical cultural precedents, contemporary Modernist ideas, and the works of previous outdoor sculptors. Deriving substance from cultural references as contrasting as Native American cliff dwellings and Japanese hanging gardens, modern earthwork projects "compose[d] a vocabulary of form and attitudes" from a historical foundation of ancient works that served to "enrich the content and effect of contemporary work, while [they remained] unmistakably of our own time" (Beardsley, Earthworks 9). Modern works also gained form from Modernist ideals, including the use of strong geometric lines and the singularity of purposes (Pregill and Volkman 689, 703). Twentieth-century artists' works, such as Constantin Brancusi's sculptural environment in Tirgu-Jiu, Romania, Herbert Bayer's Earth Mound, and Isamu Noguchi's public gardens, parks and plazas anteceded the earthworks movement by several decades but greatly influenced their landscape descendents by their design incorporation of artwork and site (Beardsley, Earthworks 78-87).





Earthwork projects also found contemporary inspiration in the form of outdoor sculpture galleries. At the same time earthwork projects were appearing in the desert, outdoor art galleries were being established at major museums. As sculptures became larger and collections grew, artists desired new outdoor settings for their works, but museums struggled to comply. One museum staffer was even quoted saying, "It's tough on museum people, artists aren't interesting in working inside anymore" (Clay 296). Beginning with the utilization of existing open space for temporary sculpture exhibitions, museums eventually created unique spaces designed specifically for permanent and rotating sculpture display (Clay 296). However, unlike previous figurative sculpture, then contemporary Modernist works were more difficult to place within the landscape because of their abstract forms, contrasting colors, and cumbersome scales (Turner). As a result, museums shied away from traditional naturalistic displays and opted for the Modernist trend of 'White Box' galleries, both indoors and out, so that art pieces could be freed of their contextual restraints and be seen in their purist form (Turner). Earthwork projects both accepted and rejected this 'clean slate' approach to artistic display. In the most fundamental of ways, they flatly rejected the 'White Box' approach because the landscape projects were inextricably tied to their corresponding sites, but in lesser ways they accepted the idea because their remote desert sites were pure in form and context, therefore creating an essentially 'clean slate'.

Outdoor environmental artwork did not gain popularity until the late 1960s, not because its predecessors were unsuccessful, but because political and cultural environmental concern corresponded to its historical timing. When as before nature seemed "vast and inexhaustible", the 1960s and 70s brought about an era where nature seemed "fragile and imperiled" (Beardsley, Earthworks 7). Problems such as environmental pollution, mass destruction of natural wilderness, and threatened extinction of species caused Americans and the rest of the world to examine their global position towards the protection of nature (Bianco). Government legislation during the time passed a multitude of bills and acts protecting the environment and its resources including clean air and water, endangered species, and strip mine reclamation acts (Beardsley, Earthworks 11). It was this time that words such as 'ecology', 'environment', and 'environmental balance' came into vogue, along with organizations and events to protect them, such as Green Peace and Earth Day (Bianco).

The initial earthwork projects of Heizer and Smithson did not intentionally set out to lead the way in environmental protection though; some would say they even substantially harmed it, calling them "landscape defacers." An editorial in Landscape Architecture from 1971 describes the early earthworks movement as one that was "ripping of cliffs, digging up untouched deserts, scarring rare landscapes with their ego-strips, [and] getting away with it easily in remote locations" (Clay 297). Quickly though, because of earthwork's immense potential to influence the perceptions of nature, others picked up the emerging trend and adapted the art form to environmentalism's cause, among other purposes and produced scores of notable and lasting works.

The Integration of Land Art and Landscape Architecture

Earthwork projects may have started as singular sites in the desert, but they quickly grew into a budding field that incorporated aspects of environmental restoration, public art and sited sculpture, and landscape architecture. Environmental artists saw new opportunities arise across the country as the public gained a new appreciation for the emerging artwork trend and found new ways of applying the artistic approach.

Environmental concerns coupled with the public's fascination of landscape projects provided the perfect opportunity for large earthworks to be incorporated into the restoration and reclamation processes of environmentally damaged sites. These sites included abandoned strip mines, expended gravel pits, deserted quarries, closed landfills, and eroded lakes and rivers (Beardsley, Earthworks 89-103). Some artists went searching for such prospects, while others received the opportunities without effort, but either way, most projects resulted in an aesthetic and effective remediation of the landscape. Two projects of particular interest are Michael Heizer's Effigy Tumuli Sculptures and Seattle, Washington's Earthworks: Land Reclamation as Sculpture exhibition. Heizer's project in the surface-mine damaged area of Buffalo Rock State Park, Illinois displayed five enormous earth mounds consisting

of abstract animal figures in the shapes of a water strider, a frog, a catfish, a turtle and a snake (Beardsley, Earthworks, 98). While these amazing forms dominated the site and drew much attention to the practice of land reclamation, the forms themselves were actually separate from the reclamation process. A more developed synthesis of environmental practices and earthwork sculptures evolved from the Seattle exhibition of 1979. The Earthworks: Land Reclamation as Sculpture show displayed the works of seven environmental artists and their hypothetical projects for damaged sites around the Seattle area (Beardsley, Earthworks, 90). For a practical demonstration, Robert Morris was chosen to ameliorate an abandoned gravel pit south of Seattle. He did so by creating a public park that featured a terraced amphitheater depression in its center. This project proved not only to be aesthetically pleasing and socially constructive, but also economically feasible for small budgets (Beardsley, Earthworks 94). Another result of the Seattle show created Mill Creek Canyon Earthworks in 1982. Designed by Herbert Bayer for the original show, this site functioned both as a public park and a storm water detention basin. Beginning as a badly eroded canyon above the city of Kent, a Seattle suburb, the area was transformed into a series of mounded earthen dams acting as interactive playgrounds, bridge bases, amphitheater seating, and storm water controls (Beardsley, Earthworks 94). This restorative spirit that brought environmental artists to reclamation projects also brought them back into urban areas for similar but smaller scaled projects, where they could attempt to "reconcile environmental art with a social purpose" (Beardsley, Earthworks 101).

The art trend that originally left the city because of its political and social constraints soon found itself back in the urban fabric of cities to take on new opportunities and audiences. Artists desired a true 'public' for their work that they could not attain in the far reaches of the desert or in photographic exhibitions that attempted to show large scale works in small frames (Beardsley, Earthworks 127). In addition to audiences, artists found their commissions moving into more urban areas as they also found that art could have a social purpose. Also, urban city planners, among other city decision makers, felt convictions to include these artists in the aesthetic decisions made for public parks and plazas (Beardsley, Earthworks 89). This process of rural land art becoming translated for an urban context led to the creation of sited sculpture. Although not a completely new concept, as traditional figurative sculptures in urban plazas were considered 'sited', sited sculpture was very different than the then presiding style of Modern sculpture. Modern sculpture was "a thing unto itself, concerned with its own internally generated form and the properties of its own materials" while sited sculptures were "manifestations of the organization of space, both internal and external… made with great sensitivity to [their] surroundings" (Beardsley, Earthworks 103-104). Sited sculptures were examples of true 'public art', not simply art in public spaces. They were works designed specifically for particular spaces and their context that strived to include narrative content, elements of environmental restoration, and some forms of utility. Although not all sited sculptures were successful, Richard Serra's Titled Arc in New York City as one infamous example, they did fit within the urban context more effectively than the awkwardly scaled Modern works (Beardsley, Earthworks 128-129).

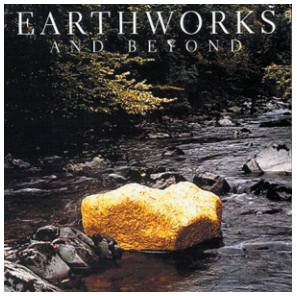
Both in the country and in the city, environmental artists were drawing from sources outside of the traditional artist's realm. As they designed their projects, they were incorporating aspects from various fields that included anthropology, environmental sciences, garden design and, especially, landscape architecture, to mention





only a few. Some though questioned whether this all-encompassing art form was truly the best approach. John Beardsley, in his land art reference book, Earthworks and Beyond, asks, "There is some cause to wonder if [environmental artists] should try at all, if the result is neither good art nor good design nor good science" (164). Still though, "green art" did call to attention some of the hazards of environmental degradation and, in doing so, caused one of the most significant trends of the late twentieth century (Beardsley, Earthworks 164). While the majority of these multi-disciplinary "green art" projects were beneficial, the most successful works involved collaborations between artists and professionals of other fields, where each participant could represent the best of their respective field.

As environmental art collaborations increased, landscape architects and landscape artists became more familiar with each other's work. This familiarity has continued to the present, where the boundary between land art and landscape design has become blurred. Sculptors are encroaching upon the field of landscape architecture, and designers are using the artistic vocabulary of sculptors (Beardsley, Earthworks 191). Practitioners of this combination art and design practice include the popular landscape architects: Maya Lin, George Hargreaves, and Martha Schwartz. Maya Lin's noted Vietnam Veteran's Memorial, built on the National Mall in Washington DC in 1981, has brought national attention, and constructive debate, to a more symbolic landscape approach to commemorative memorials that has recently gained wide acceptance across the country (Pregil and Volkman 703). George Hargreaves' sculptural public projects act as "'theatres of the environment' because of the way they heighten the spectator's awareness of natural process (Beardsley, Earthworks 192). Of particular interest is his design for Byxbee Park, in Palo Alto, California. The site was a former landfill that transformed into a park, combining the needs of a reclaimed landfill with artistic expression. It created a landscape similar to an outdoor sculpture garden because of the way it incorporated art and art design into the landscape (Horii). Also a contemporary landscape architect, Martha Schwartz is known both in the world of art and the realm of landscape design because of her unique approach to both fields. Although many of her projects are artistic in nature, one particular works stands out because of its stark contrast to a former sited sculpture. Schwartz's design for Jacob Javits Plaza in New York City was a redesign of the plaza that held Richard Serra's, now deconstructed, Titled Arc. Although both designs for the plaza included forms of sited sculpture, Schwartz's plan has found much more public success because of its functional elements and positive spatial arrangement (Hill). As the scope of landscape architecture increases to include more forms of artistic expression, and as the realm of environmental art projects strive to create more social purposes, the two fields blend together to forge a single synthesis of art and design for landscape.



RELEVANT THEORY

Design ideas for this research project on land art gardens derive their theory from a combination of approaches to outdoor sculpture display and earthworks design. While projects from the different areas may have connections to each other, as related in the historical perspective, the theories behind those projects are most often distinctive to their own fields.

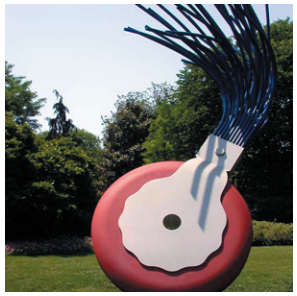
Outdoor Multiple Sculpture Display Theory

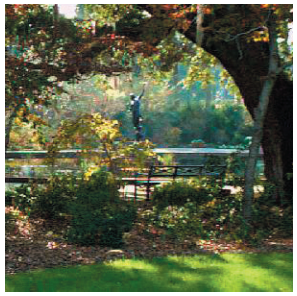
Outdoor sculpture displays featuring multiple art works are usually part of a sculpture park or a sculpture garden. While parks and gardens have several similar characteristics, they each derive their form from differing theories.

Sculpture parks are, for the most part, rural in context and sizable in acreage because of the space necessary to display their monumental sculptures. Such large works do not usually fit within the spatial confines of the urban environment or indoor museums and are more suitably displayed in a large rural area where they have room to be fully appreciated. Sculpture parks are also typically pastoral and natural in their designs, often featuring separate or intermingled flower gardens, native prairies, and nature conservancies. Also because of their scale and setting, sculpture parks most often stand independently from art museums or cultural centers. Although there may be structures on the site, these buildings typically only exist to compliment the park in its needs for indoor facilities and gathering space. Storm King Sculpture Park is one such example of a large rural park. Located in the mountains of Newburgh, New York, fifty-five miles from Manhattan, Storm King displays the works of more than eighty-six artists in a pastoral setting on five hundred acres of land. It attempts to maintain its natural appearance throughout the site by siting roads, parking lots, bus routes, and signs outside of important visual sightlines (Castro).

In contrast to sculpture parks, sculpture gardens are mostly located in urban contexts and are therefore smaller in scale and more architectonic in style. Usually, sculpture gardens do not stand independently; they are, instead, the outdoor extension of indoor sculpture galleries. These gardens are similar to parks, in that they often display works too large in scale to fit inside a museum, but these garden works are usually smaller than those found within a park. For sculpture gardens, there are several different theories of artwork display. The first theory, mentioned in the historical review, is the 'White Box' approach. In this method, the garden is expressed as an outdoor room with clipped turf lawns as the floors and trimmed vertical plantings, such as boxwood, for the walls. These visually simplistic spaces display their sculptures as the only form of 'furniture' within the room. An illustrative example of this approach occurs within a section of the Minneapolis Sculpture Garden in Minnesota. Here, there are four large quadrants bounded by hedges of American Arborvitaes with several sculptures displayed in the centers (Feinberg 71).

Another theory of sculpture garden display is the pastoral approach. In some ways similar to a sculpture park, but on a significantly reduced scale, these naturalistic sites usually occur as parts of urban public parks or in areas outside of densely populated downtowns. Typically, these gardens feature sculptures mixed among natural features under a canopy of woodlands. One such example of this

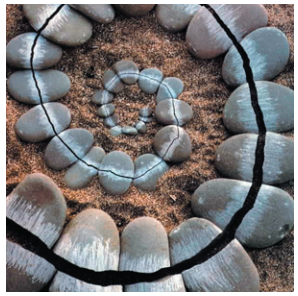



approach would be Brookgreen Gardens near Myrtle Beach, South Carolina. Here, large figurative sculptures are sited throughout nine-thousand acres in a pastoral landscape mixed among historic fountains, beautiful flower gardens, and natural woodlands (Lang).

A more recent theory to outdoor sculpture display, known as installation art, has also become popular. In this approach, sculptors create works similar to sited sculptures in that the works fit well within their context and landscape. This approach is different to sited sculpture, though, because installation art entrusts the artist with complete control over all design aspects of the site. Instead of designing the piece to the land, as in sited sculpture, the land is designed around a piece. This method is usually only found among commissioned works for museums and campuses. An example of this approach is found at the General Mills Art Collection on the site of their corporate headquarters in Minneapolis, Minnesota where sixteen artists display their work and site designs in an eighty-five acre campus (www.sculpture.org).

Earthwork Theory

Large environmental artworks usual derive their form and style from one of three primary theories. The first approach sets large works into or onto the landscape in a way that the art work and the land are "inextricably merged as one artistic work" (Pregill and Volkman 703). Here, the artwork and the land maintain separate boundaries but retain close connections as one piece (Beardsley, Earthworks 104). This approach includes most sited sculptures where the land is part of the art. An example of this approach would be Maya Lin's Vietnam Veteran's Memorial because the angled wall is distinct from the land, but would loose its meaning and form without its surrounding landscape. The second approach to earthworks uses natural materials as the artwork. Here, materials of the earth, including soil, stone, and wood, comprise the entire piece, making the boundary between land and art is indefinable or invisible (Pregill and Volkman 703). The majority of large earthworks have derived form from this theory, including, Michael Heizer's Double Negative and Effigy Tumuli, Robert Smithson's Spiral Jetty, and Herbert Bayer's Mill Creek Canyon Earthworks. Smaller, more intimate environmental artworks also use this method, such as Andy Goldsworthy's various projects of stone, leaves, twigs, and ice. The final, primary approach to earthworks deals with the ephemeral and ethereal processes of nature. Here, the artworks interact with nature's processes such as lightning or solar paths to create an artistic expression (Pregill and Volkman 703). Walter De Maria's Lightening Field, Robert Morris's Observatory, and Nancy Holt's Sun Tunnels are all notable examples.

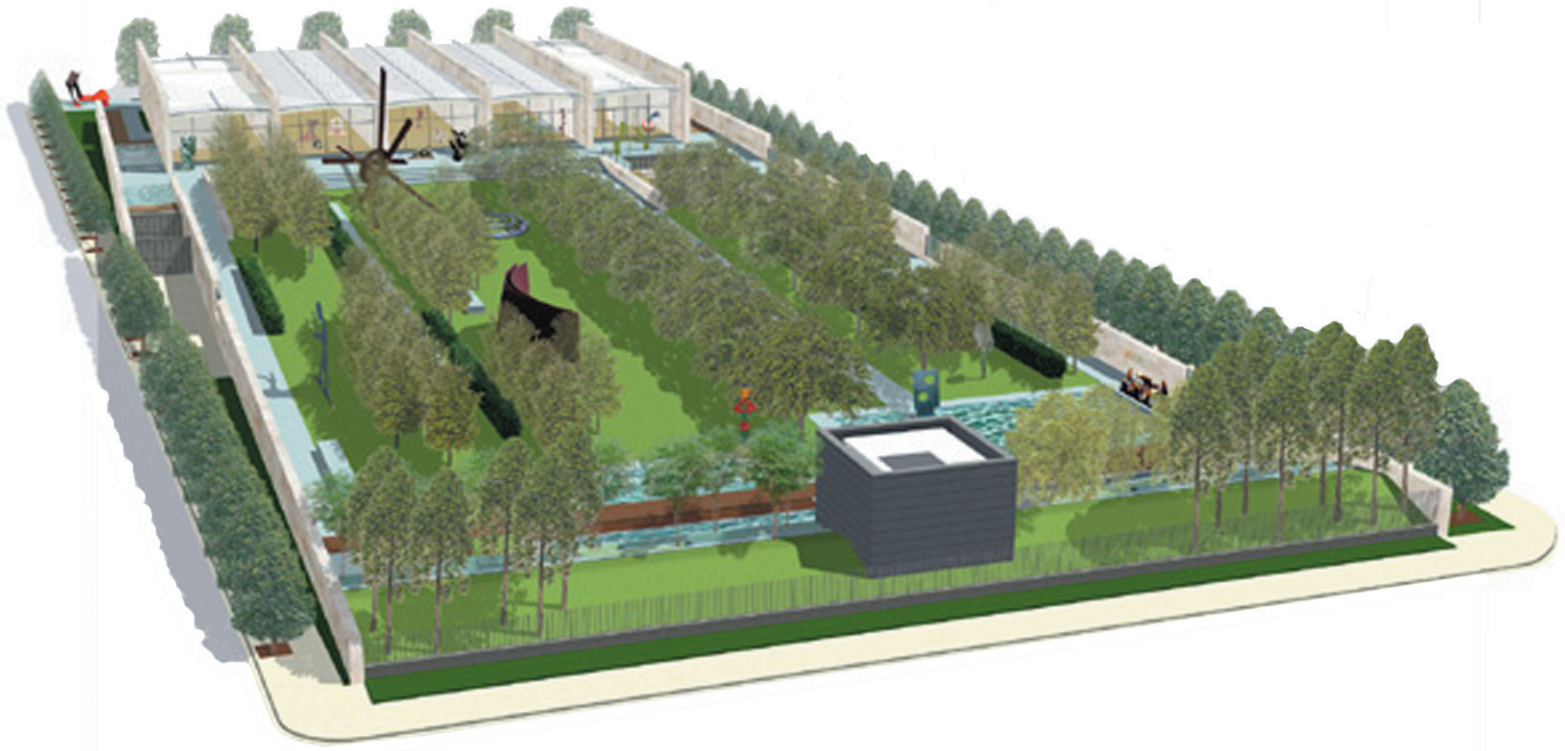


CASE STUDIES

This project combines sculpture garden design and environmental art into a single form of landscape architecture. Because there are few, if any, existing and recorded cases of this combination, examples from each of the separate fields were selected. The following case studies are only a minute sampling of their larger fields, but accurately represent modern design theory and application to outdoor sculpture display. Two works were chosen from each field that accurately represent a set of similar circumstances and solutions as the proposed research project. The sculpture garden sites illustrate urban examples of modern design for sculpture display, while the earthwork projects demonstrate a synthesis of land art and landscape architecture.

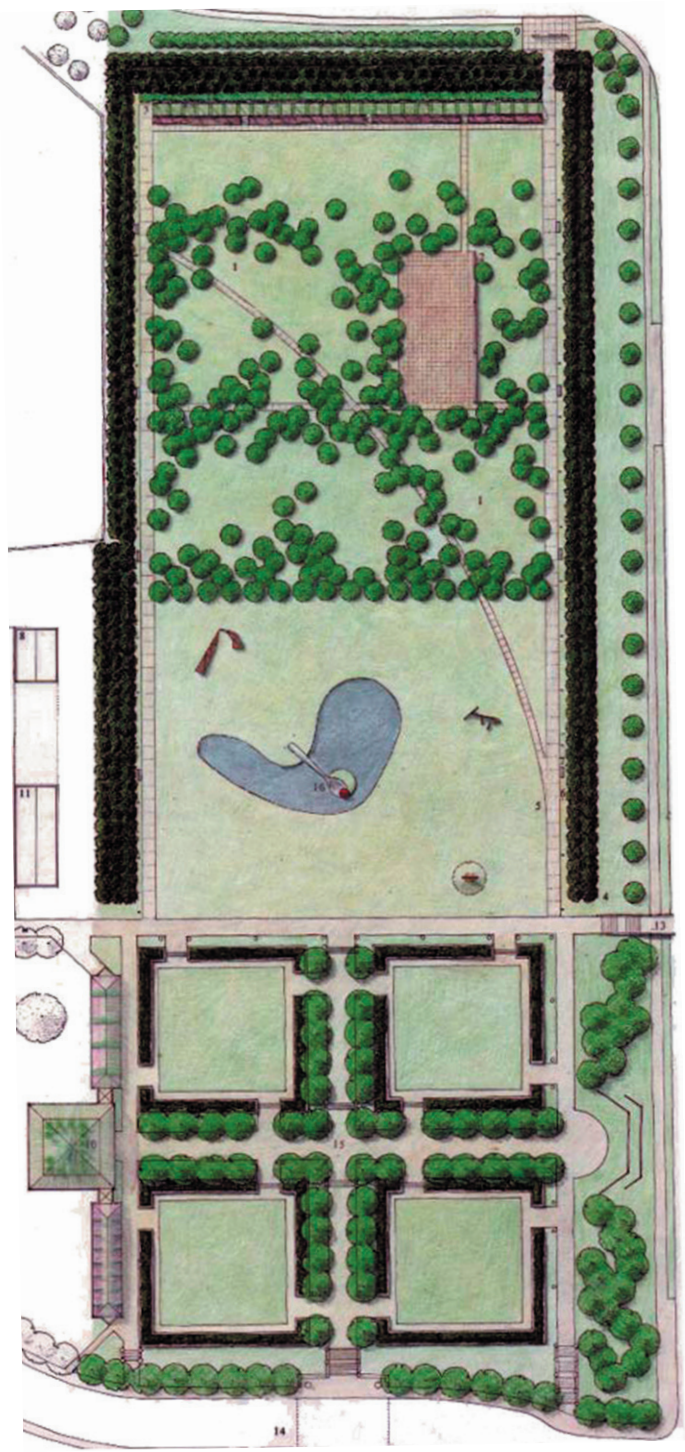
Nasher Sculpture Center in Dallas, Texas

The Nasher Sculpture Center is located in downtown Dallas, on the edge of the city's skyscraper district. In an effort to display the Nasher family's collection of twentieth century sculpture, the museum has built as an outdoor, roofless gallery, both indoors and outside (Nasher Sculpture). The museum structure consists of ten thousand square feet of gallery space divided into five equal sections by travertine stone walls, smooth on the inside and weathered on the exterior (Dillon 88). As a continuation of the interior space, the garden consists of one and a half acres of sloped lawn divided between extensions of the travertine walls. This garden, meant as a green oasis, is slightly below street level so as to directly contrast the surrounding urban environment (Nasher Sculpture). Typically displaying twenty five pieces concurrently, the space is plentiful, but must be flexible because most of the pieces are shown on a rotating basis (Dillon 88). These sculptures are mixed between a loose grid of urban-hardy trees, simple water features, and hidden lighting and irrigation elements (Nasher Sculpture). The Nasher Sculpture Center is located on the spine of Dallas's arts district and responded to its position by placing its pavilion directly on the street's edge. This frontal position attempts to reinforce the urban character of the city, increase the area's development, and bring together the fragmented arts district (Dillon 87).

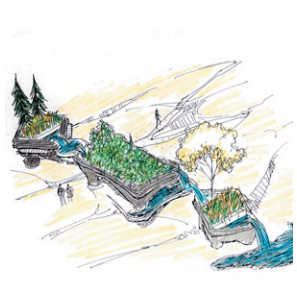


Minneapolis Sculpture Garden
Minneapolis, Minnesota

The Walker Art Center and its Minneapolis Sculpture Garden are located at the heart of downtown and act as a practical history of modern sculpture garden theory because of their many expansions and renovations. First established in 1927, the Walker Art Center opened its modern facility in 1971 and its sculpture garden in 1988. As both a functioning public park and sculpture garden, the gardens are owned and maintained by the Minneapolis Park and Recreation Board while the art is property of the Walker Art Center (Feinberg 69). First designed by Peter Rothschild, the 1988 design for the gardens included seven and one half acres and thirty-eight sculptures. Much like how the museum was a "well-ordered series of white boxes in which to place art objects," the land became a "series of easily negotiated, open-to-the-sky green boxes in which to place sculpture" (Feinberg 69). These boxes consisted of four one hundred by one hundred square foot quadrants. They were designed to display sculpture 'in the round', while the formal pathways dividing them exhibited sculpture in the frontal view (Feinberg 71). The gravel pathways also acted as symmetrical axes to the garden and featured perfectly aligned tree allées. Directly north of the quadrants, the great lawn with its vegetative walls, curvaceous pond, and featured artwork, Spoonbridge and Cherry, terminated the visual sightline and vertical axis through the garden (Feinberg 72). The formal glass conservatory was built to the east of the quadrants to house smaller, temporary and permanent sculptures (Feinberg 71). This formal design for the gardens did not follow the then current trend of installation art, but still found much success in its plan (Feinberg 69). The 1992 expansion by Michael Van Valkenburgh added 3.7 acres to the gardens, bringing the total land to eleven acres and making the Minneapolis Sculpture Garden the largest urban sculpture garden at the time (Beardsley, Museum Landscapes 63). Van Valkenburgh attempted to create a plan that would "enhance the existing garden… but depart from its rigid geometries" and that would "add [to the existing plan] by being different and complimentary" (Beardsley, Museum Landscapes 63-64). His design featured scattered groves of urban trees with a single arcing path through it that ended in a three hundred foot stainless steel vine-covered arbor and sound wall (Engstrom 10). The current expansions, scheduled for completion in 2006, include four acres that were the former location of the Guthrie Theater in a design by the French architect, Michel Desvigne (Minneapolis Sculpture Garden). Desvigne's design for the land south of the existing gardens will be a "free form expansion," consisting of clustered "lush plantings in crisp geometrical spaces" that will turn the existing "flat, formal sculpture garden inside out" (Mack 21).

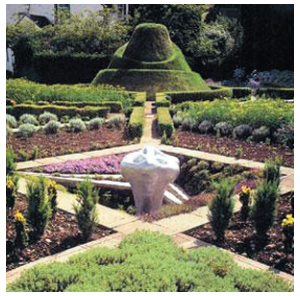


Elevated Wetlands by Noel Harding in Toronto, Canada
Elevated Wetlands is an environmental art project located on two thin strips of land on either side of the Don River Parkway, near the polluted Don River, in Toronto, Canada. The six large forms that compose the project are situated in a linear fashion, three to each side of the road, in descending order from largest to smallest (Bennett 75). They are shaped in forms resembling something between molars and beakers and are part of a large wetland project. The wetland process begins with water from the nearby Don River that is transported through solar powered pumps to the top of the highest form. The water is then filtered through the vegetative material within the forms and falls into the next form, where the same process occurs. Once the polluted water has filtered through all three forms, it then slowly flows through the ground wetlands in a more natural cycle until it is cleansed and released back into the Don River. Although the wetlands do not physically treat enough water to have substantial ecological benefits, they are still an important, approachable, and understandable symbol for the environmental restoration effort of the Don River and other polluted water sources (Bennett 87). In a recent Landscape Architecture article, author Paul Bennett explains the usefulness of this environmental project by explaining, "The point is not how much water the wetlands clean, but rather that they clean at all, and do so in a way that is highly visible and utterly comprehensible" (Bennett 87). In addition to its symbolic objectives, the artwork also features practical environmental purposes in the demonstration of uses for recycled plastics. To grow their vegetative plantings, the forms do not use actual soil. They instead they use an artificial soil mix composed of recycled bottles, polystyrene, and auto shredder residue (ASR), the non-metal leftover automobile elements along with filter barriers, geo-membranes, and geo-textiles (Elevated Wetlands). Within this artificial soil, the plantings root hydroponically and begin the process of phytoremediation, where plants with the natural ability to remove pollutants from the environment cleanse their surroundings of harmful chemicals and heavy metals (Elevated Wetlands).



Garden of Cosmic Speculation by Charles Jencks and Maggie Kenswick in Dumfries, Scotland

The Garden of Cosmic Speculation, also known as the Portrack Garden, is a complicated landscape that attempts to reconcile theory and design of the modernist Chaos theory (Beardsley, Making Waves 65). While the many earthen forms of the site can have multiple meanings, most of them relate in some way to nature's image as unpredictable, creative, dynamic, and periodically leaping (Beardsley, Earthworks 197). Two mounds visually dominate the rural, twenty-five acre site; one in the form of a spiraling terraced hill and the other shaped as a long reversing curve. These earth mounds overlook a pair of curving ponds that together form the shape of a butterfly, nature's motif for transformation (Beardsley, Making Waves 66). Following the pattern of a pair, two terraces lie next to the exterior wall that separates the garden from the surrounding meadow. The first, The Black Hole terrace exhibits a distorted pattern of astroturf and polished aluminum; while the second, The Symmetry Break terrace displays disconnected bands of grass and stone that grow closer together and farther apart across the space (Beardsley, Making Waves 94). In a separate area from the mounds, ponds, and terraces, lies a 'kitchen garden', also know as the DNA/Physics Garden or Garden of Common Sense. This garden is composed of six differing cells, one for each human sense: sight, smell, touch, taste, and feel, and one for a new sense, anticipation. Each of these cells contains plantings related to its described sense and a representative sensory sculpture circumscribed within a double helix form (Beardsley, Making Waves 70). Surrounding the garden and dividing its separate spaces are stone serpentine walls and wavy metal fences that reinforce the wave as the dominant motif of the garden and its guiding theory (Beardsley, Earthworks 197).



DESIGN ISSUES AND TRENDS

Although different styles of outdoor sculpture display may possess unlike theories as their reference style, the resulting gardens and parks have a similar set of design characteristics among them. These characteristics, including aspects regarding theme, variation, connection, appropriateness, and technicality, help to produce an atmosphere conducive to interaction between land, art, and participant.

Theme is the first of the design characteristics. It plays a large role in the holistic experience of an outdoor sculpture display. To guide the overall design plan, there is first a site theme that is carried throughout later decisions. This master theme is supported by an organizational plan that specifically arranges sculptures, sightlines, pathways, and other elements of the site with particular regard to size, scale, style, and content (Forgey 40). Through this organizational pattern, certain areas of concentration are established within the site. Here, special attention is placed on elements that integrate and enhance the artistic experience, such as the use of functional design, related colors, textural plantings, and minimal signage.

Variation is the next element in the set of characteristics. Throughout the site, elements change and vary with the participant's movement (Olin Partnership). Within different areas of the site, themes and styles adjust to their specific location. The ground plane undulates through the use of stairs, ramps, slopes, and terraces, separating the spaces and creating distinct visual and sensory experiences (Pregill and Volkman 696). There are both formal and informal spaces to display varying types of sculpture, but all spaces are friendly and all the sculptures are approachable (Johnson, 1999 69). Both established walkways and casual paths connect these differing spaces to allow the participant to view the sculptures and spaces from differing vantage points. Between these spaces and pathways, various forms of water and plantings are present to create unique visual and sensory experiences that enhance the participant's interaction with the art and the land.

Third on the list of characteristics is connection. Both connection and separation between and among spaces are important for a complete artistic experience of the site. Separated areas of the site, including indoor spaces and outdoor areas, are connected though pathways and a set of similar planting palettes and design elements. Visual sightlines and viewpoints establish links and connections throughout the site. Certain areas of focus, which are separated in some fashion from the rest of the site, create unique experiences with individual sculptures (Forgey 41). Throughout the site, the variously themed and styled areas connect through the use of pathways, plantings, and sightlines.

Also essential to the experience of outdoor sculpture displays, and fourth of the characteristics is appropriateness and functionality. Part of the overall design plan and organizational pattern of the site handles the appropriate scale and size relationship between both the architecture and landscape and the sculpture and setting (Forgey 40). Outdoor displays also include flexible spaces for rotating sculpture displays, educational settings, and public gathering space (Beardsley, Museum Landscapes 63).

The final characteristic for sculpture display deals with the technical aspects of the site. While the space can be, or sometimes needs to be, completely engineering, it still has the visual appearance of a naturalistic setting (Castro). The naturalized setting, though, is fully or mostly accessible to all its participants (Forgey 40). It also has the appropriate technology and personnel to operate its necessary irrigation, lighting, and landscape maintenance. Although not a strict mandate for its aesthetic appeal, outdoor displays also strive for sustainability and ecological restoration (Forgey 40). The technical aspects of an outdoor display help to enhance the participant's experience with the artistic site.

STATEMENT OF THE PROBLEM

This study analyzed the interaction of sculpture, in and of the land, with its surrounding landscapes, both urban and rural; so as to discover the most beneficial design approach to art and land design that improves both the art and the land's visual and representative impacts. This information was then interpreted so as to reveal the design program and form for a contemporary museum's art garden in downtown Raleigh, North Carolina.

RESULTANT SUBPROBLEMS

Subproblem One: Analyze the interaction of sculpture in and of the land, including environmental art and sculpture gardens, with its surrounding landscapes.

Subproblem Two: Analyze the differences in interaction between sculpture and the land among urban and rural sites so as to discover and separate the design characteristics for each; specifically focusing on urban attributes.

Subproblem Three: Interpret the analyzed data so as to determine the most beneficial design approach to sculpture and land design, then apply this approach to a contemporary museum's proposed art garden design plan.

SIGNIFICANCE OF THE PROJECT

For theoretical applications of this research and design, this study uniquely integrates three distinct fields of research into a single synthesis of design. Using the relatively recent history of environmental art, with such artists as Robert Smithson, Michael Heizer, and Walter De Maria, this study applies the theoretical and physical connections of large outdoor works to the more urban setting of a land art park. This study also utilizes the methods and practices of existing sculpture gardens in their approach to sculpture placements and overall design strategy, using such examples as Nasher Sculpture Center and Walker Art Center. As a method to fully integrate the art park into the fabric of contemporary design, this study also utilized the design strategies found in the works of modern landscape architects such as Martha Schwartz, George Hargreaves, and Maya Lin.

For practical applications, this research data and design process can be applied to both general artistic site designs and, more relatedly, to downtown urban sites. This project reclaims remnants of former industrial sites back to the local residents and provides to them open and artistic space to contrast the gridded urban space of everyday life. These densely populated areas, profiting from any open space, can especially thrive with the introduction of art. The method in which the land and art are integrated into the landscape allows the participant to be actively engaged in the artistic interpretation, but also allows for other, less formal, park activities. This artistic design can then act as a catalyst for urban redevelopment and for downtown "arts districts"; both of which can promote healthy communities and enhance neighborhood identity.



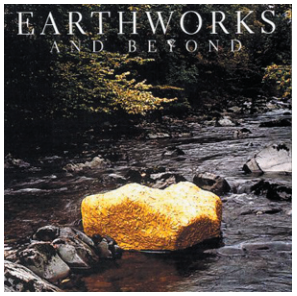


RESEARCH METHODS

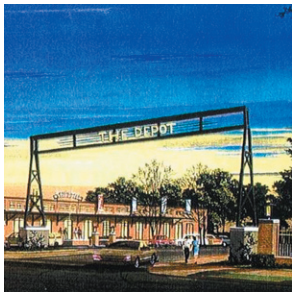
The methodology of this design process describes the course of action taken to resolve the research problem and its resultant subproblems. The research problem was first broken into smaller, more manageable subproblems that dealt with specific aspects of the original problem. These separate subproblems each then had a specific methodological program to resolve their related subject matters. These programs list the data used and explain the method for analyzing and interpreting the resulting data. The methodology for this research was used to discover common design characteristics in the interaction of sculpture and the landscape, the differences between urban and rural sculpture sites, and how this analyzed data could be applied to a site in downtown Raleigh, North Carolina.

To determine common design characteristics in the interaction of sculpture and the landscape, a variety of sources were employed. Predominantly utilizing historical and literary sources, this particular research matter was solved, in part, through analyzing books, journal articles, and online resources. Of particular interest for its in-depth analyses on earthwork projects over the decades and centuries, was Earthworks and Beyond, by John Beardsley. Journal articles primarily focusing on the critiques and trends of sculpture gardens and parks, from journals such as Landscape Architecture and Land Forum, among others, were also used. Online resources, such as Sculpture Magazine Online, featured topics including interviews and artists' statements. Along with these secondary literary sources, primary sources, such as project photos and plans, were studied to determine physical layouts and spatial arrangements of sculpture gardens and environmental artworks. These books, journals, websites, and graphics were then analyzed and interpreted to find a common set of physical, ethereal, and psychological factors that could connect sculpture pieces to the landscape.

To determine the design differences between urban and rural sculpture sites, including sculpture gardens and earthwork projects, comparative case studies were examined and analyzed. Sources for the various case studies included a broad range of books, articles, websites, photos, and videos. As this subproblem dealt with the design characteristics different between urban and rural sites, both urban and rural sculpture gardens, parks, and earthwork projects were analyzed. However, the final design site was urban in context; therefore, the predominant research effort was focused on the design characteristics exhibited in urban sites. Each detailed case study included information from multiple sources so as to incorporate various facts, opinions, analyses, and critiques. For sculpture settings, a general study was completed on rural sites such as Storm King Sculpture Park and the Frederick Meijer Gardens, while a detailed analysis was performed on the Nasher Sculpture Center in Dallas, Texas and the Minneapolis Sculpture Garden at the Walker Art Center in Minneapolis, Minnesota. For earthwork and land art projects, a broad study was done on rural sites such as Spiral Jetty by Robert Smithson and Lightening Field by Walter De Maria, and a comprehensive analysis was executed on Elevated Wetlands by Noel Harding and The Garden of Cosmic Speculation by Charles Jencks. All the above listed case studies and analyses were then used to interpret common and unique sets of design characteristics for urban and rural sites.



For the final subproblem, the previously analyzed data from the first two subproblems was applied to the project site in Raleigh, North Carolina to determine its best design approach, form, and program. With the assistance of Nicole Welch, the Assistant Director of the Contemporary Art Museum in Raleigh, North Carolina, and others, a site was chosen downtown, adjacent to the art museum. Once the site was chosen, general information on the land and its context was gathered and collected from various sources including: historical references, newspaper articles, government departments, interviews, and personal observations. Site data such as aerial photographs and plans were obtained along with more complex site and context information such as soil types, wetland boundaries, property limits, and building locations. Specific site information, in the form of site photos, spatial analyses and geographic and cultural inventories, was gathered through a series of personal site visits. Once the majority of the necessary data was collected, goals and objectives were established for the site. These goals and objectives incorporated both the researched data regarding the interaction of sculpture and the landscape and the site information regarding project opportunities and constraints to help create an appropriate design program. This design program was then interpreted into two differing concepts that each satisfied the same set of needs through differing approaches. While also utilizing sketches, diagrams, and illustrations, the concepts were then combined together to create a beneficial final design solution that accommodated a wide range of theoretical and practical necessities. The final design encompassed a range of graphic and textual information, including, a master plan for the entire site and context, a focal area plan, sections through the site, informative perspectives, and other helpful information, that acted as a unified synthesis of theoretical research and practical design.



CRITERIA FOR SITE SELECTION

The following criteria were suggested for the selection of an appropriate site to act as the physical product of the related research.

- The project site was to be directly adjacent or physically related to a significant museum or attraction; preferably an attraction dealing with the visual arts.
- The public must be able to access the project site.
- The project site was to be in an urban district, preferably with a downtown location.
- The project site must be within two blocks walking distance to residential areas.
- Preferably, the site was to be located within an existing or proposed arts district.

DESCRIPTION OF CLIENT AND NEEDS

The first and foremost client for this project was the Contemporary Art Museum (CAM) of Downtown Raleigh. Recent relocated to the warehouse district on the southwest edge of downtown for larger exhibition spaces and artistic opportunities, CAM was interested in methods of establishing themselves as the center figure of the emerging arts district within the area. As their new facility was a remodeled warehouse and the surrounding warehouses were in a state of steady decline, CAM decided to invest resources into their new home. This method of investment was to create an exterior extension of their interior galleries in the form of a sculpture park for both museum visitors and local residents. As they wished to have the park exist as both a functioning public park and a private sculpture garden, the services of Raleigh's Parks and Recreation Board were also enlisted as a secondary client.

As both clients wished for similar design decisions and program on the site, their subsequent needs were connected but somewhat differing because of their specific guidelines. CAM wished for the site to have:

- **Spaces** for artwork exhibitions and event gatherings
- **Accessible** to museum visitors and patrons along with local residents and workers
- **Connected** physically and visually to the museum
- **Aesthetic** and artistic spaces and sculptural elements

While the city of Raleigh and its subsequent Parks and Recreation Board wished for the site to have:

- **Spaces** and planning for the proposed light rail and its development
- **Accessible** to all city residents and visitors
- **Connected** to the surrounding city and district through pedestrian and vehicular traffic
- **Aesthetically** pleasing park design and features

GOALS AND OBJECTIVES

The research involving sculpture and land interaction and the needs of the involved clients supported a design project that created a land art garden and public park in conjunction with a downtown art museum. The following list of goals and objectives were developed for this project.

Goal One: Connection. Design and provide physical, visual, and psychological connections to the surrounding context of the site.

Objective One: Museum.
Directly connect the site to the adjacent museum through the use of gateway features, repetitive design elements, and signage.

Objective Two: District.
Connect the site and its surrounding warehouse district through the use of physical entrances and visual sightlines within the site and design similar artistic features throughout the district.

Objective Three: City.
Link the site to the city, larger downtown area, and extended arts district through the use of similar design features, pedestrian friendly streets, and linear sightlines.

Goal Two: Aesthetics. Design the site to be aesthetically pleasing in all forms of design.

Objective One: Art.
Develop and arrange the land and art pieces to maximize their interaction within the landscape.

Objective Two: Urban.
Provide attractive urban elements throughout the site to connect the area to its surrounding context.

Objective Three: Natural.
Design the landscape to include natural and park-like features to accentuate the contrast with the urban context.

Goal Three: Space. Develop a public space in the downtown area where people can experience art in the landscape through a variety of spatial encounters.

Objective One: People.
Serve the city's needs by developing differing spaces capable of hosting anything from civic function gatherings to intimate conversations.

Objective Two: Park.
Design the landscape to provide spaces for park features that highlight walking paths, seating areas, and scenic views.

Objective Three: Art.
Serve the adjacent art museum's needs by creating open space within the site to be used for art education and display of the museum's outdoor sculpture.

Goal Four: Accessibility. Design the site to accommodate a wide variety of user types and groups using a range of transportation methods.

Objective One: Light Rail.
Provide access to the site from the adjacent light rail line and proposed transit station.

Objective Two: Vehicular.
Allow restricted vehicular access to the site and its surroundings through the use of parking areas and passenger drop-off zones.

Objective Three: Pedestrian.
Design the site to be freely accessible to the pedestrian at a variety of locations surrounding the site.

DESIGN PROGRAM

GOALS	OBJECTIVES	PROGRAM
CONNECTION	Museum	Museum Connection
	District	District Connection
	City	City Connection
AESTHETICS	Art	Aesthetic Sculptures
	Urban	Aesthetic Urban Features
	Natural	Aesthetic Natural Elements
SPACE	People	Gathering Space
		Private Space
	Park	Central Space
	Art	Exhibition Space
ACCESSIBILITY	Light Rail	Vehicular and Light Rail Access
	Vehicular	
	Pedestrian	Pedestrian Access

Connection

Museum Connection – This area acts as the main entry marker into the site and should possess a large gateway feature that uses repetitive design elements of the site and surrounding context.

District Connection – This transitional space connects the site to the street and light rail station and should feature a secondary entry feature or features, wide paved pathways and plaza areas with abundant seating, and design elements similar to both the park and surrounding context.

City Connection – This entry space into the park should feature a paved plaza space, public seating, a secondary entry feature or features, and urban sculptures.

Aesthetics

Aesthetic Sculptures – Throughout the site sited sculptures should be designed for and placed in specific locations that highlight important sightlines and frame impressive views.

Aesthetic Urban Features – Urban features throughout the site but specifically concentrated in the northeast sections should be used to connect the park to the surrounding urban context and include elements such as wide linear paved pathways, partial tree coverings, and paved plaza areas.

Aesthetic Natural Elements – Natural elements such as pervious or semi-pervious winding pathways, undulating topography, and dispersed intimate seating areas should be used throughout the site but specifically concentrated in the southwest sections of the site.

Space

Gathering Space – This space should contain sloped open lawns that dip down to a centrally located stage area with partial covering.

Private Space – This courtyard space should be buffered from the public park and contain a partially enclosed paved area with intimate seating and human-scaled sculptures.

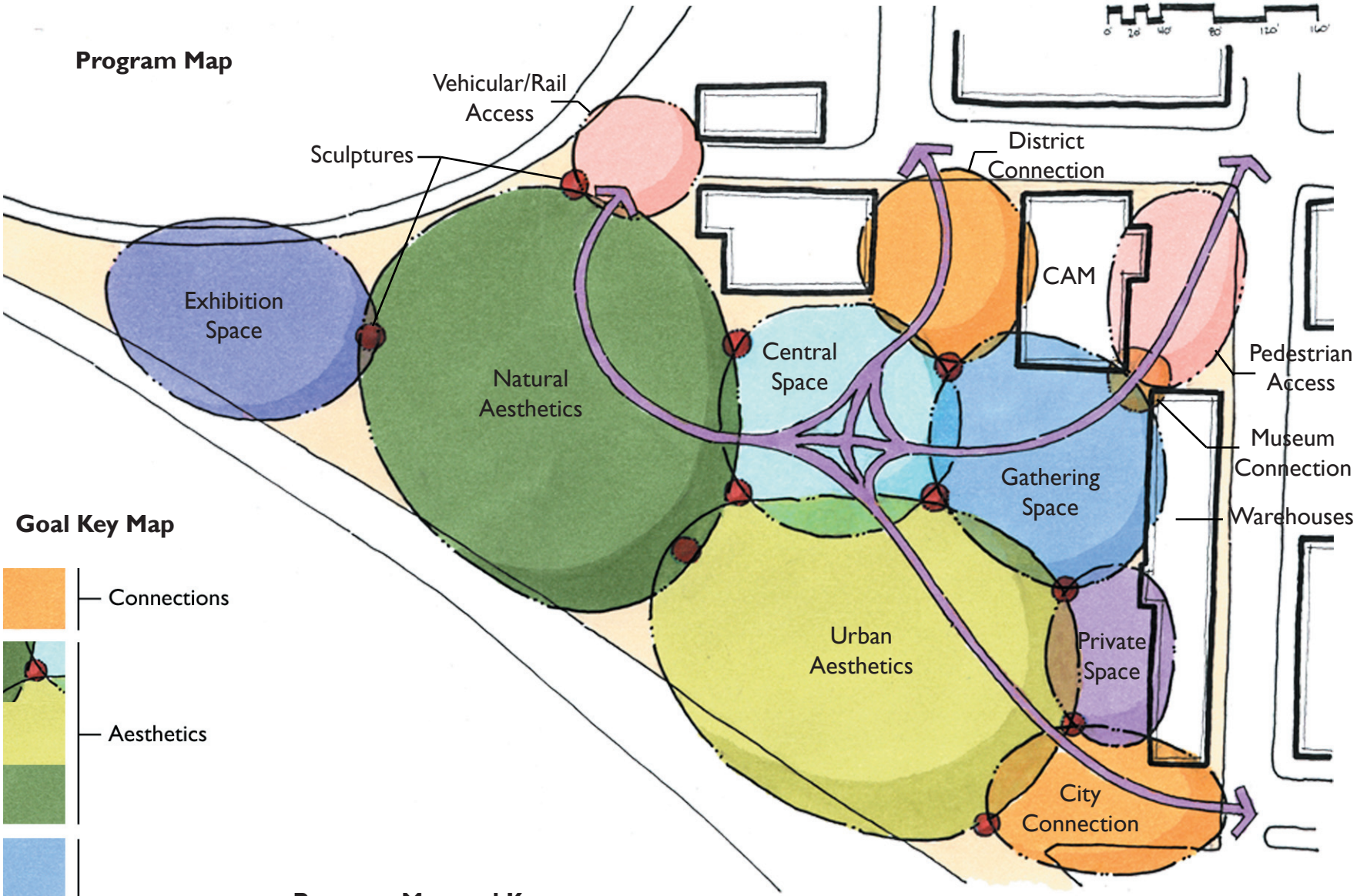
Central Space – This space should highlight a central sculptural element and contain areas of public seating and paved plaza space and have access to public restrooms.

Exhibition Space – This semi-private space should be partially secluded from the rest of the park and have open turf lawns for the display of traveling sculpture exhibitions.

Accessibility

Vehicular and Light Rail Access – This area should include space for the guided interaction of pedestrians and vehicles and a main signage feature for the park. It should have transitional paving patterns and temporary parking areas for vehicles and paved plaza space with covered waiting shelters for pedestrians.

Pedestrian Access – This primary pedestrian entrance to the park should connect the intersection to the main entry of the CAM building, the outdoor café, and the central pedestrian entrance into the park while being partially buffered from the surrounding streets. This area should feature a focal water element, shelters and shade for pedestrians, outdoor seating areas for resting and dining, and a mix of vegetation and paved plaza areas.



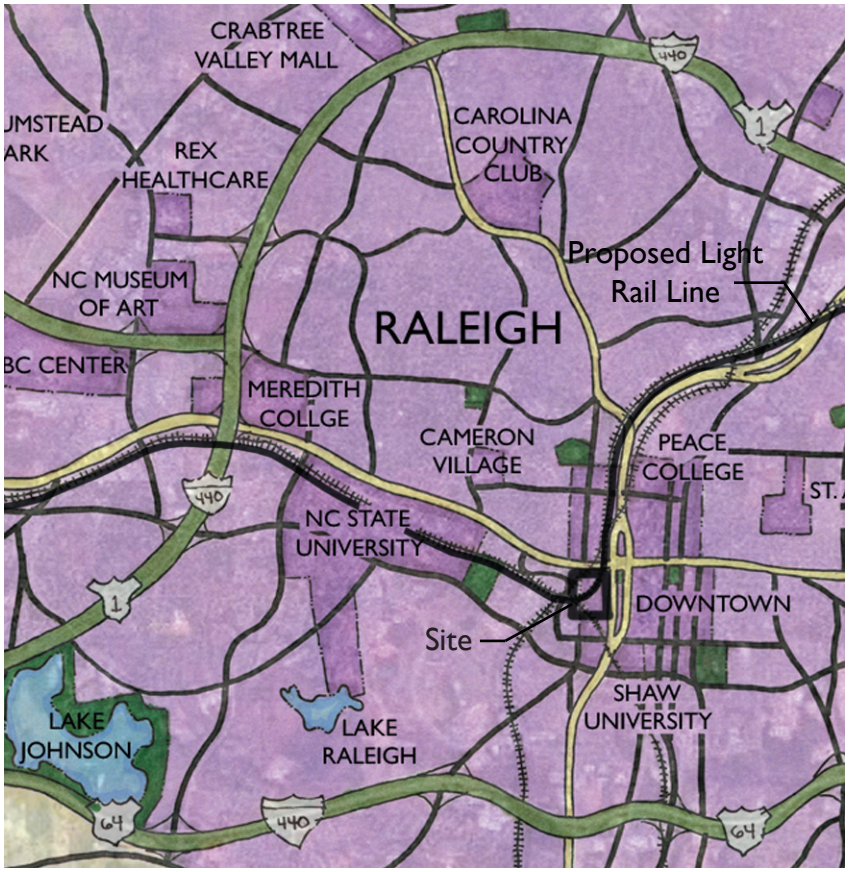
Program Map and Key

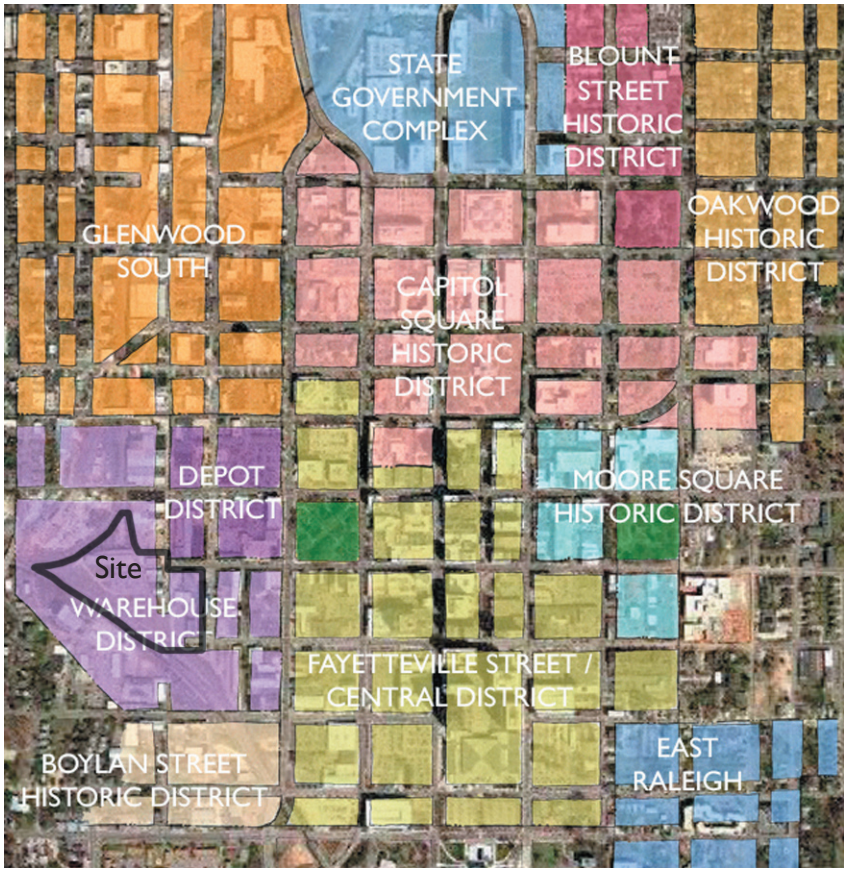
This program map illustrates the related design program text on the previous page and points out the locations of the specific program items throughout the site. The connection spaces are located on the northern and eastern edges of the site next to the adjacent streets. The areas for aesthetics are located throughout the site for sculptures and in the central vicinity for the natural and urban areas. For spaces, the central and gathering spaces are located next to CAM, the exhibition space is placed in a partially secluded area, and the private space is located next to the existing warehouses. The access points to the site are located at the street intersection for pedestrians and the street terminus for vehicles and light rail users. The Goal Key Map illustrates the program item locations to the four original project goals.

DESCRIPTION OF SITE AND CONTEXT

The project site exists within the redeveloping Warehouse District of downtown Raleigh, North Carolina. As a home to the Contemporary Art Museum, CAM would help to support the programming, financing and maintenance of a land art park in their district. Located at the intersection of South Harrington Street and West Martin Street, CAM has positioned itself at the heart of the current renovations to the Warehouse and Depot Districts. Although still in its planning and financing stages, the museum's presence has helped to foster an artistic atmosphere to the area. When completed, the museum will consist of 20,000 square feet of indoor display space for "works of both the masters of today and the emerging masters of tomorrow" and focus primarily on education and partnerships within the community (www.camnc.org).

Within one block's radius of CAM lie various upscale nightclubs, trendy production studios and presses, modern art galleries, interesting variety shops, and popular restaurants. Centered on Martin and Davie Streets, these local attractions are dispersed among existing industrial shops and warehouses, drawing an interesting mix of people during both business and entertainment hours. The Depot District, a newly emerging area directly north of the site, consists of a four block area bounded by Morgan, Dawson, Martin, and West Streets. Of particular interest to the area is the recently constructed Depot development, one block south of CAM, which plans to create an upscale area of retail and restaurant development. The entire Warehouse District still maintains an industrial atmosphere but shows signs of artistic redevelopment,



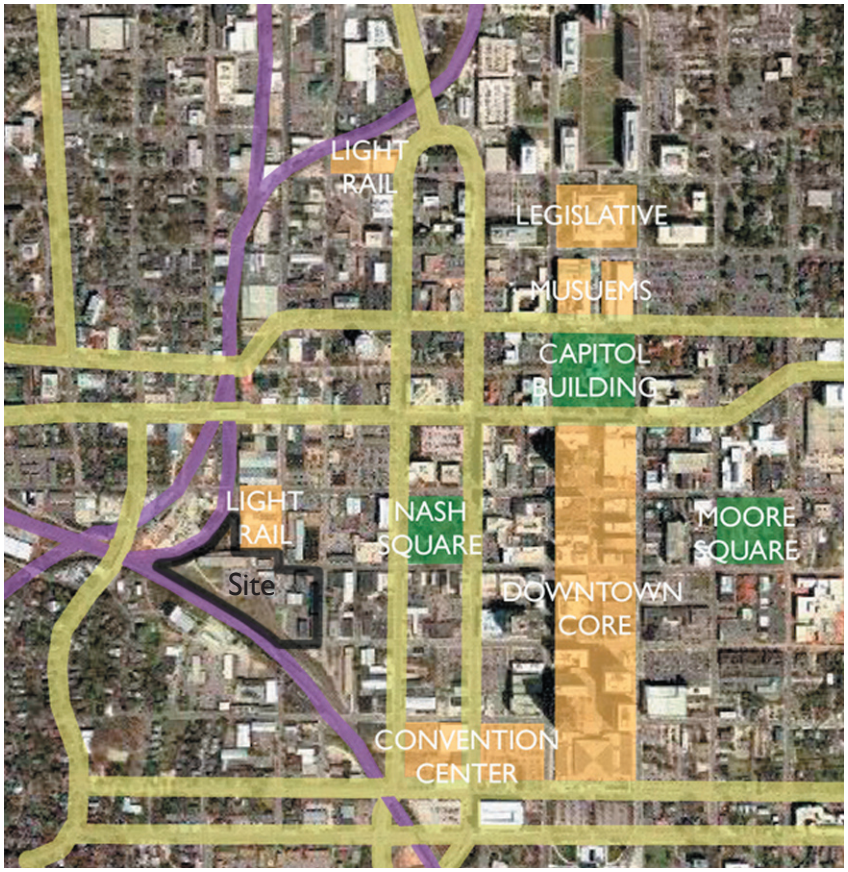


CAM

lending a distinct character identity to the new sites and a sense of pride and historical importance to the existing ones.

Many attractions lie within three blocks distance of CAM. To the east, Raleigh's downtown urban core consists of numerous commercial buildings and headquarters, popular museums, abundant retail stores and restaurants, historic government facilities, and a recently constructed convention center complex. To the North, the Glenwood South District has recently emerged as a destination for younger crowds with popular restaurants, clubs, and shopping. To the south, the Boylan Street Historic District houses historic old homes and is a vibrant mature community.

Of major importance to the Warehouse District is the proposed light rail line running directly adjacent to the north of the site. This commuter line is scheduled, by the fall of 2008, to become part of the planned Triangle Transit Authority's (TTA) light rail line that runs from west Durham to downtown Raleigh (Siceloff). The rail line will eventually consist of twelve stops down the line connecting Durham and Duke University, Chapel Hill and the University of North Carolina, Raleigh and North Carolina State University, Raleigh International Airport, Triangle Research Park, and outer-lying suburban areas. This rail line will have major implications for the Warehouse District because it is the scheduled location for the central downtown Raleigh transit station. Currently, the Warehouse District is home to approximately 2500 people and 1100 businesses, but as the central stop for all of Raleigh, it will connect over 1.5 million people triangle area people through the TTA light rail line and certainly see abundant growth.



INVENTORY

Previously, the site was mostly unused, except for the overflow parking of nearby offices and clubs and a section of one warehouse. The site was cut directly in half by an unused rail line that used to form part of the railroad wye (a triangular turn around for trains). The section of the site east of the track included: a small abandoned warehouse, several dumpsters, gravel and asphalt parking areas, and one occupied building. The building, in the southern section of the site, housed Oxygen nightclub and small fitness center. The section of the site west of the track included: large amounts of scrub vegetation, an operational warehouse, asphalt parking lot for the warehouse, and a small drainage swale. The warehouse and its parking lot were part of the Dillion Supply Company that occupies a large section of the Warehouse District in the two blocks directly north of the site.

The site itself is defined by Martin St. and the proposed light rail line to the north, S. Harrington St. to the east, The Depot development and Davie St. to the south, and the Southern Railroad Line to the west. The site was mostly flat, except for a slight change in topography in the middle of the existing overflow parking. On the opposite side of the Southern Railroad, an extreme slope runs from the railroad lines southwest, where some light industrial buildings and residential homes exist. Excellent views to the Boylan St. Bridge in the west and the central downtown district in the east occur from inside the site. Traffic and noise from the surrounding streets are minimal but trains pass frequently on the Southern Railroad. For the construction and development of the light rail line and station, scheduled demolition of the Dillion Supply warehouses and the unused section of railroad wye on-site were planned. As the unsightly backside to the recent and planned redevelopment around it, the site previously offered few aesthetic or cultural benefits. When transformed into a modern open space, though, the site has the potential to become a cultural and social center for the redeveloping Warehouse and Depot Districts.

A. On-Site Gravel Parking, Railroad Tracks with scrub vegetation and Boylan Street Bridge in the distance.

B. Center of Site with only existing topography using wooden staircase and gravel retaining wall, asphalt parking and warehouse are seen in the distance.

C. On-Site asphalt parking with dumpster, The Office Nightclub, Dillion Supply Warehouse and electric lines in the distance.

D. The Oxygen Nightclub and fitness gym located on-site.

E. The entry archway into The Depot using industrial design motifs of the district is located directly south of the site on the Davie Street and S. Harrington Street intersection.

F. The Depot development with stone paving pattern to the south of the site with Raleigh's primary downtown commercial building in the far distance.

ANALYSIS

The project site and its context are currently in the center of a district filled with old industrial buildings and dilapidated warehouses that are slowly becoming reused, but after the construction and establishment of the Triangle Transit Authority's light rail commuter line, the district will be the foremost connection to downtown Raleigh and most likely see astronomical growth in population and structures. For the purposes of this project, it is assumed that the light rail would be in place before the creation of the park, and therefore the site analysis considers the line and its necessities to be both a fixed constraint and opportunity. The analysis of this site used the four primary project goals of connection, aesthetics, space and accessibility as guiding factors in determining the site design's decisions.

Connection

The first goal, connection, means for the site to be linked visually, physically, and psychologically to its surrounding context and for its context to be connected to the site. In this effort, certain sightlines and links should be emphasized and/or established. There should be a strong tie to the intersection of Harrington and Martin Streets at the corner of the CAM facilities to tie CAM and the partially obscured park to its urban context. There should also be a physical connection to the proposed light rail station to the north and a visual connection to both Boylan Street Bridge to the west and downtown in the east. Sightlines into and out of the site along Davie, Martin, Harrington, and West Streets should be emphasized and maintained.

Aesthetics

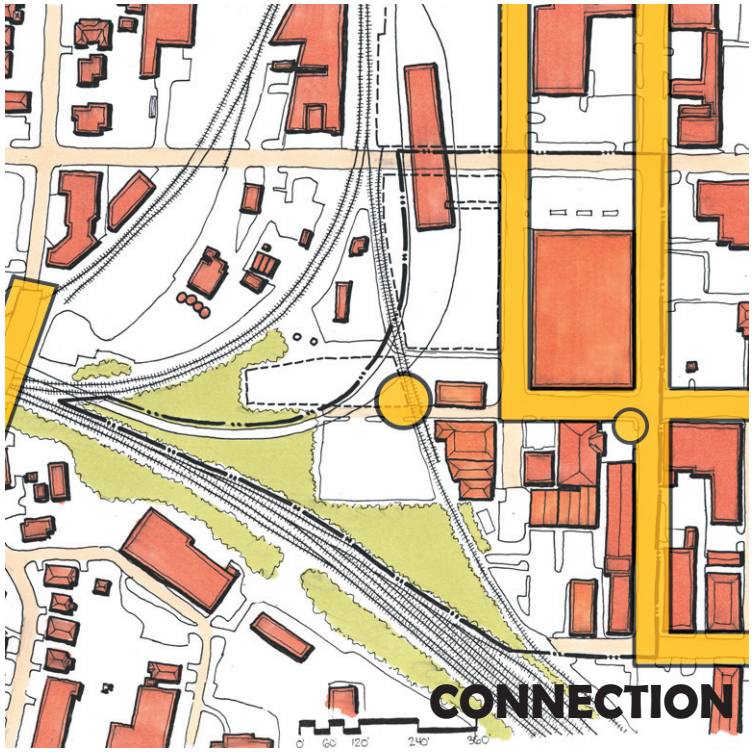
The second goal of the project, aesthetics, means to create and maintain an aesthetically pleasing atmosphere in and around the park. In this endeavor, much of the area should be revitalized and designed to include artistic, natural, and urban features. The majority of the interior section of the site should include vegetated design to contrast the paved and structured exterior. The streetscapes, with special emphasis on the intersections should be redesigned to accommodate both pedestrians and vehicles in a more aesthetic method. Finally, the Southern Railroad should be buffered with extensive vegetation or topographic shifts to both decrease the unpleasant noise and increase safety.

Space

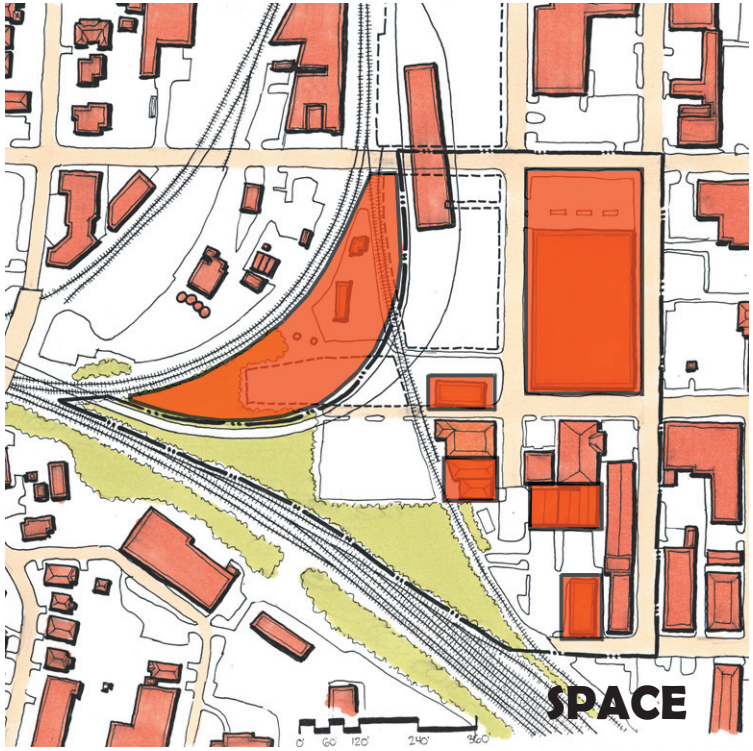
The third goal, space, means to identify, maintain, and create areas for the park and its design intent. To do this, some of the buildings in the interior of the site, such as the Oxygen nightclub and fitness center, the abandoned warehouse, and another nightclub, The Office, should be removed. The area between railroad and light rail tracks to the northwest of the site should be vegetated and preserved as a temporary to permanent tree-save. Also, the block to the north of the site, adjacent to the proposed light rail station should be renovated or transformed into transit oriented development as the paradigm for future growth in the district.

Accessibility

The fourth and final goal of the project, accessibility, does not necessarily mean to design each and every space of the park and its surrounding to be handicap accessible, but rather to make the site accessibility from a variety of transportation methods including pedestrian, light rail, and vehicular. In this effort, the dead-end sections of West and Davie Streets should be removed to create the maximum amount of pedestrian friendly space. The intersections of Martin and West, Martin and Harrington, and Harrington and Davie should be redesigned to emphasize pedestrian zones and include traffic calming elements. Finally, a section of the redeveloped warehouse on the eastern border of the site should be removed to allow for pedestrian access into the site from the intersection of Martin and Harrington Streets and the CAM facilities front entrance.


CONNECTION


AESTHETICS


SPACE


ACCESSIBILITY

DESIGN CONCEPTS

Nature Concept

Urban Concept

GOALS	PROGRAM	URBAN	NATURE
CONNECTION	Museum	+	=
	District	+	+
	City	+	=
AESTHETICS	Sculpture	=	=
	Urban	+	-
	Natural	-	+
SPACE	Gathering	=	+
	Private	-	=
	Central	+	=
	Sculpture	-	+
ACCESSIBILITY	Light Rail	=	+
	Vehicular	=	=
	Pedestrian	+	=
		Concept	Comparison

KEY	
+	Strength
-	Weakness
=	Acceptable

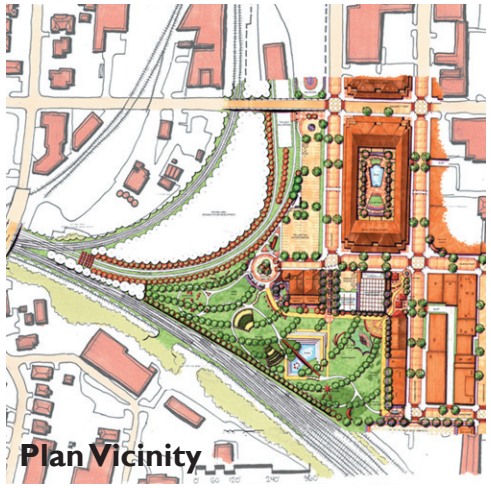
Design Concepts

The natural and urban design concepts shown on the previous pages solve the same set of program needs but through vastly different design solutions. The matrix above textually illustrates the comparative advantages and disadvantages of these differing designs.

The first concept uses natural and organic elements as an inspiration for design. The intimately sized winding pathways weave through the undulating topography to create interesting spatial interactions with the landscape and sculpture. The central water feature, secluded sculpture exhibition space, and amphitheatre become excellent focal areas of the park. For vehicles and light rail users, the turn around area allows for smooth traffic flow and accessibility to the park. The concept is somewhat weak on entrances and gateway features into the site, though, has no tree cover in the central section, and provides an ill-suited private space to the warehouse users.

The second concept uses the urban fabric of its surrounding context as a design inspiration. While it possesses the most design advantages, it also contains the most disadvantages. The concept's expansive entry plazas, wide interior paved spaces, and enhanced intersections allow for many activities and great exterior connections to the park but few differing spatial experiences inside the park. The focal splash pad and fountain create a playful atmosphere and strong central space while the linear rows of trees help to balance the plazas. The new development proposed to the southwest of the park helps to increase the urban context, while the street through the park helps to connect these two spaces. While this road would be beneficial it also creates an awkward exhibition space and would not be realistically practical across four railroad tracks. The concept provides little to no private space for warehouse users, has less than ideal positioning for its amphitheatre, and lacks significant pathways through the vegetated park space.

MASTER PLAN AND DETAILS



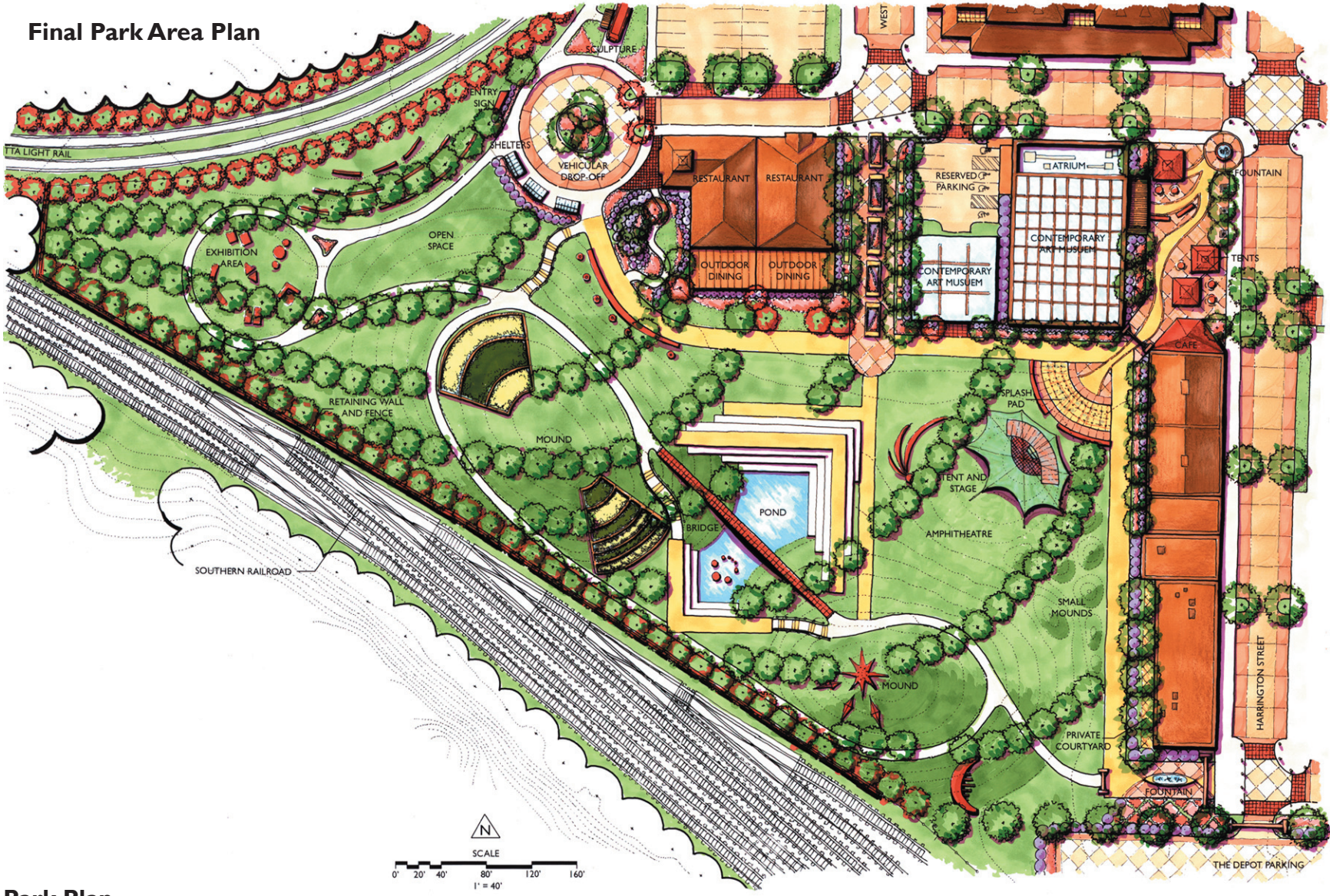
Plan Vicinity

Conceptual Area Master Plan

Final Plan and Context

The conceptual area master plan illustrates the final design solution for the project site and its adjoining context. The final plan includes a land art park, redesigned streetscapes and intersections, a proposed parking layout for the light rail station, and examples of transit oriented development.

Final Park Area Plan



Park Plan

The final art park plan synthesizes the client needs, goals and objectives, and program requirements into a single synthesis of design. Surrounding the park are the light rail line, station parking, and the edge of proposed new development to the north, redesigned streetscapes with parallel parking and raised intersections to the east, and The Depot development and Southern Railroad to the south and west.

In the park itself are the CAM facilities and adjacent CAM Plaza to the northwest; redeveloped warehouses and the Depot Plaza to the west; a large vegetated retaining wall to the south, sculpture exhibition space and a vehicular drop-off area to the northeast, newly developed restaurants and the West Street Plaza to the north, and two large mounds, a central pond with terraced plazas, an amphitheatre, and a splash pad in the center. Throughout the park, sculptures are placed on important sightlines and in strategic locations.

GOALS	PROGRAM	URBAN	NATURE	FINAL
CONNECTION	Museum	+	=	+
	District	+	+	+
	City	+	=	+
AESTHETICS	Sculpture	=	=	=
	Urban	+	-	=
	Natural	-	+	+
SPACE	Gathering	=	+	+
	Private	-	=	=
	Central	+	=	+
	Sculpture	-	+	+
ACCESSIBILITY	Light Rail	=	+	+
	Vehicular	=	=	+
	Pedestrian	+	=	+

Final Plan Comparison Matrix

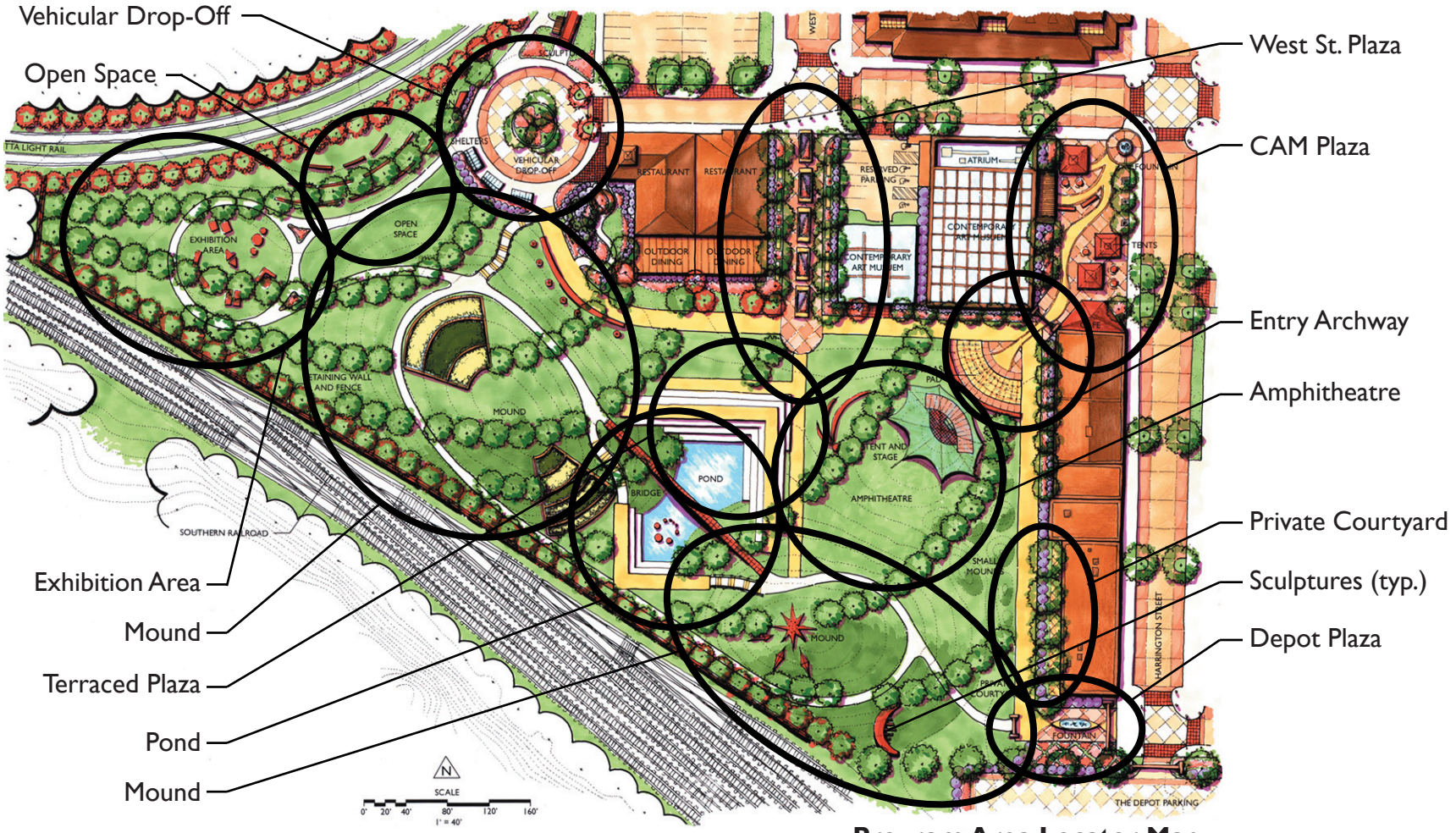
KEY	
+	Strength
-	Weakness
=	Acceptable

Final Plan Comparison

The final plan combined the strengths of the primary concepts into a unified design solution. The urban concept had advantages in the entrance plazas on context connections while the natural concept had strengths in sculptural spaces and natural aesthetics; the final concept contains beneficial designs for all of these areas in addition to other advantages.

The final design is especially strong in connection and accessibility features. Its three plazas, including the CAM Plaza, the West Street Plaza, and the Depot Plaza on the north and west sections of the site, provide excellent connections to the three desired links of museum, district, and city. The CAM Plaza, in combination with the vehicular drop-off area, also provides easy access into the site from a variety of transportation methods including light rail, vehicular, and pedestrian.

The spaces and aesthetics of the final plan are well designed and exceptionally strong in most areas. The amphitheatre in the center of the site is well placed and visually prominent while the sculptural exhibition space is secluded but publicly accessible. The central space of the park with the pond and terraced plaza works extremely well to unify the entire site. The private courtyard would be beneficial to the warehouse users but could possibly use more seclusion from the public spaces. The natural aesthetics of the park contrast nicely to the site's surrounding context and provide a well needed respite from the city. The sculptural elements of the park most certainly highlight important sightlines through the park, but could be physically developed into actual sculptures with more time. The urban features of the site are excellent on the perimeter of the park, but could be increased at a risk of loosing natural elements in the central section of the site.

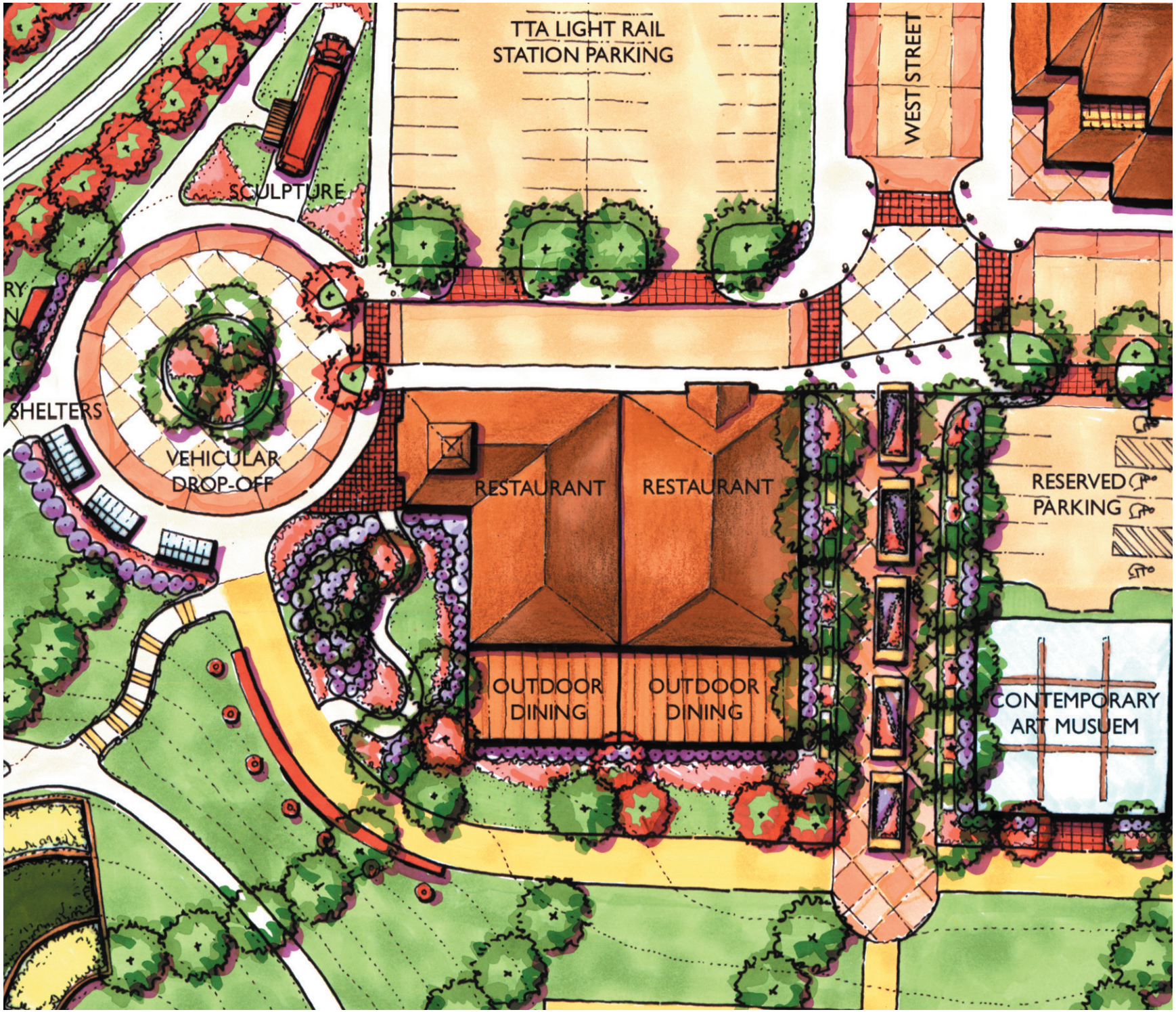


Program Area Locator Map

Program Area Identification Table

GOALS	OBJECTIVES	PROGRAM	MASTER PLAN
CONNECTION	Museum	Museum Connection	Entry Archway
	District	District Connection	West St. Plaza
	City	City Connection	Depot Plaza
AESTHETICS	Art	Aesthetic Sculptures	Sculptures (typ.)
	Urban	Aesthetic Urban Features	Terraced Plaza
	Natural	Aesthetic Natural Elements	Mounds and Open Space
SPACE	People	Gathering Space	Amphitheatre
		Private Space	Private Courtyard
	Park	Central Space	Pond
	Art	Exhibition Space	Exhibition Area
ACCESSIBILITY	Light Rail	Vehicular and Light Rail Access	Vehicular Drop-Off
	Vehicular		
	Pedestrian	Pedestrian Access	CAM Plaza

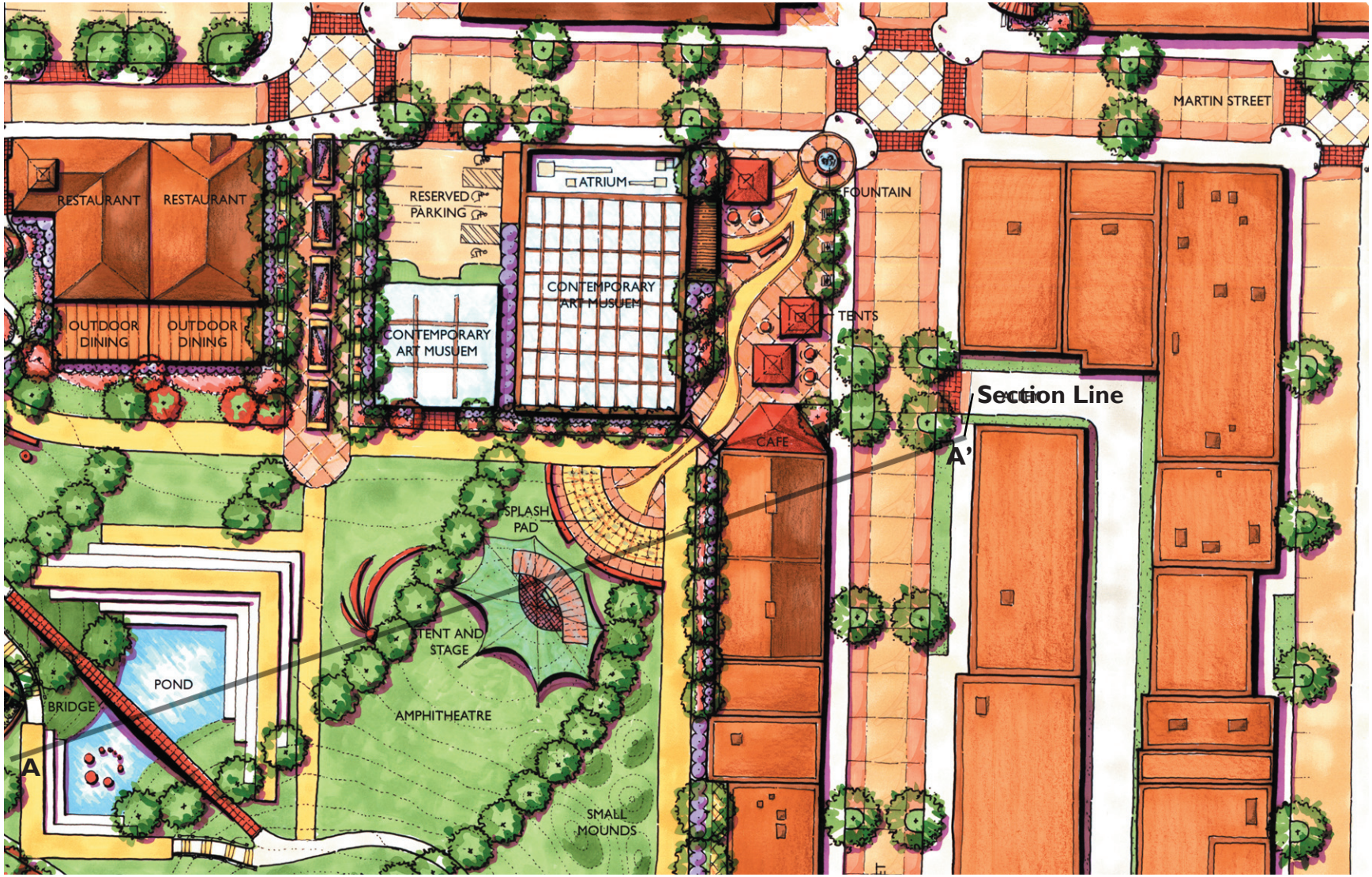
The program area identification table and its related locator map graphically and textually illustrate the required program items for the four project goals on the final master plan. The final area plan results in a figure very similar to the original program map, located in the Design Process section. The following pages will further illustrate and discuss these specific areas through the use of enlargement plans, sections, axons and perspectives.



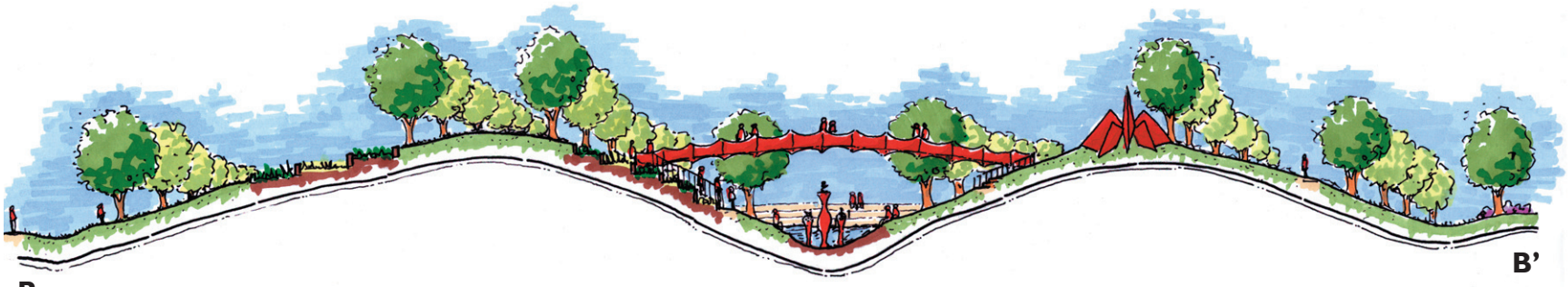
West Street Plaza Enlargement Plan

West Street Plaza Perspective

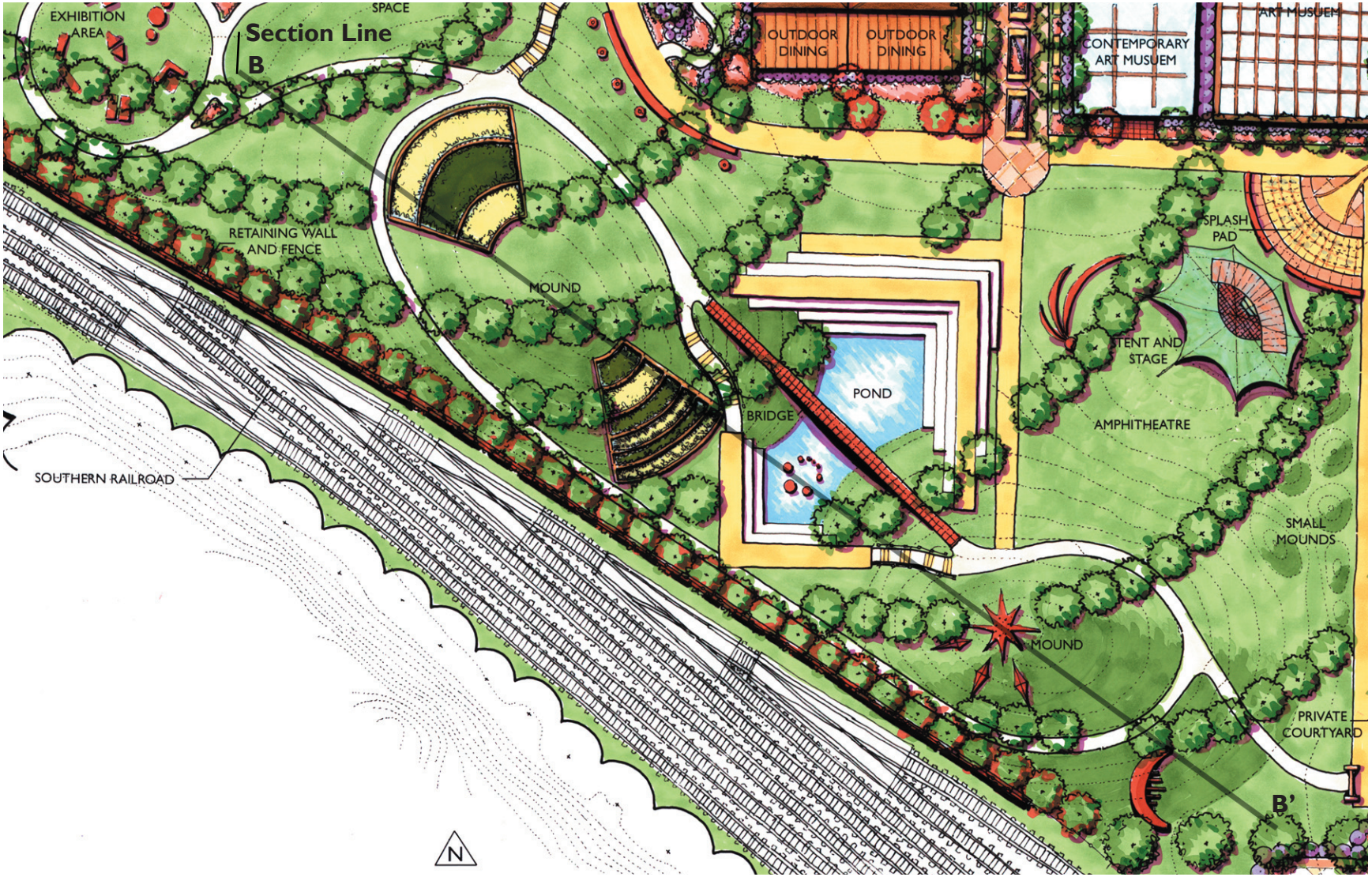
Urban Area Section



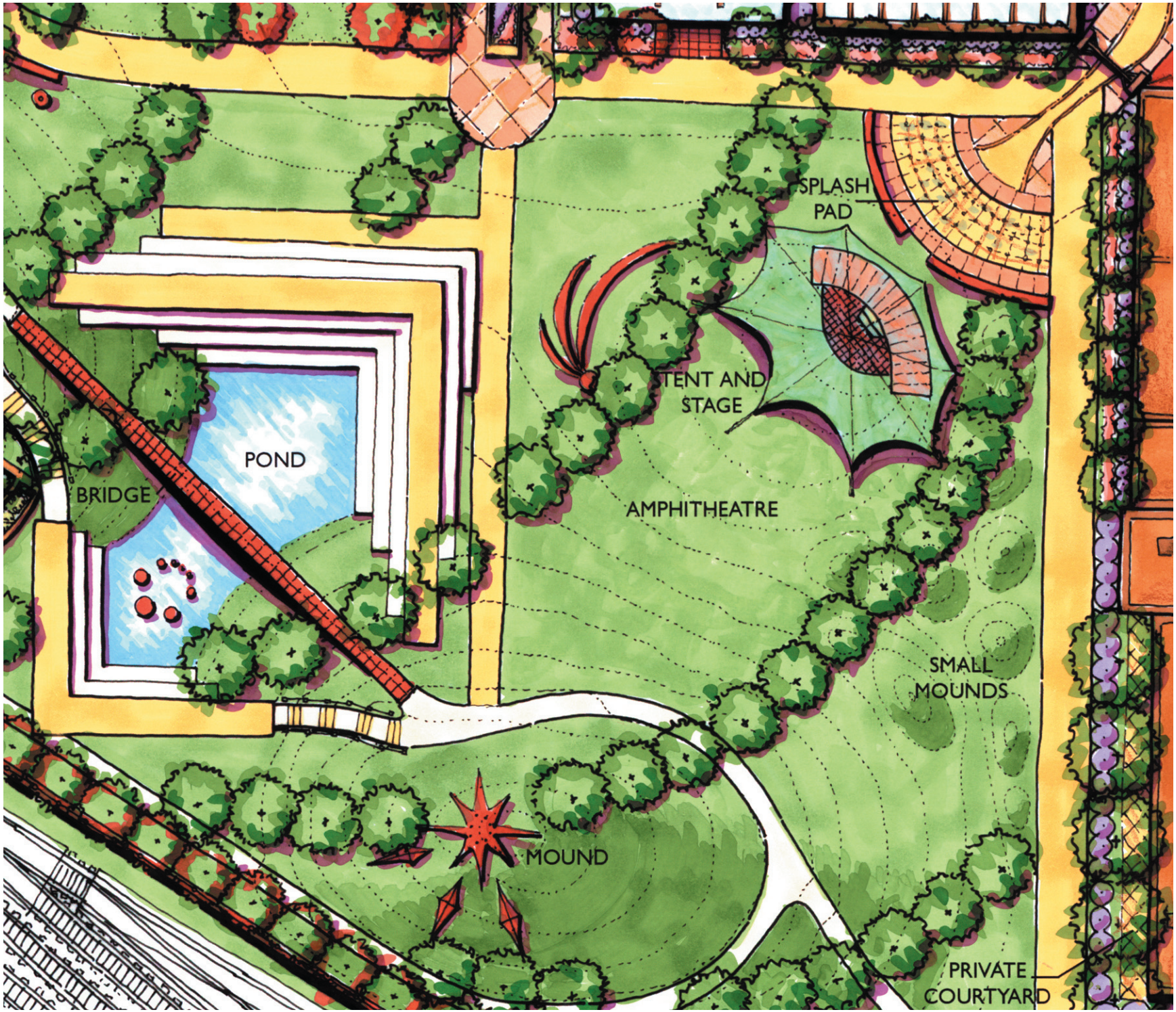
Urban Area Enlargement Plan



Natural Area Section

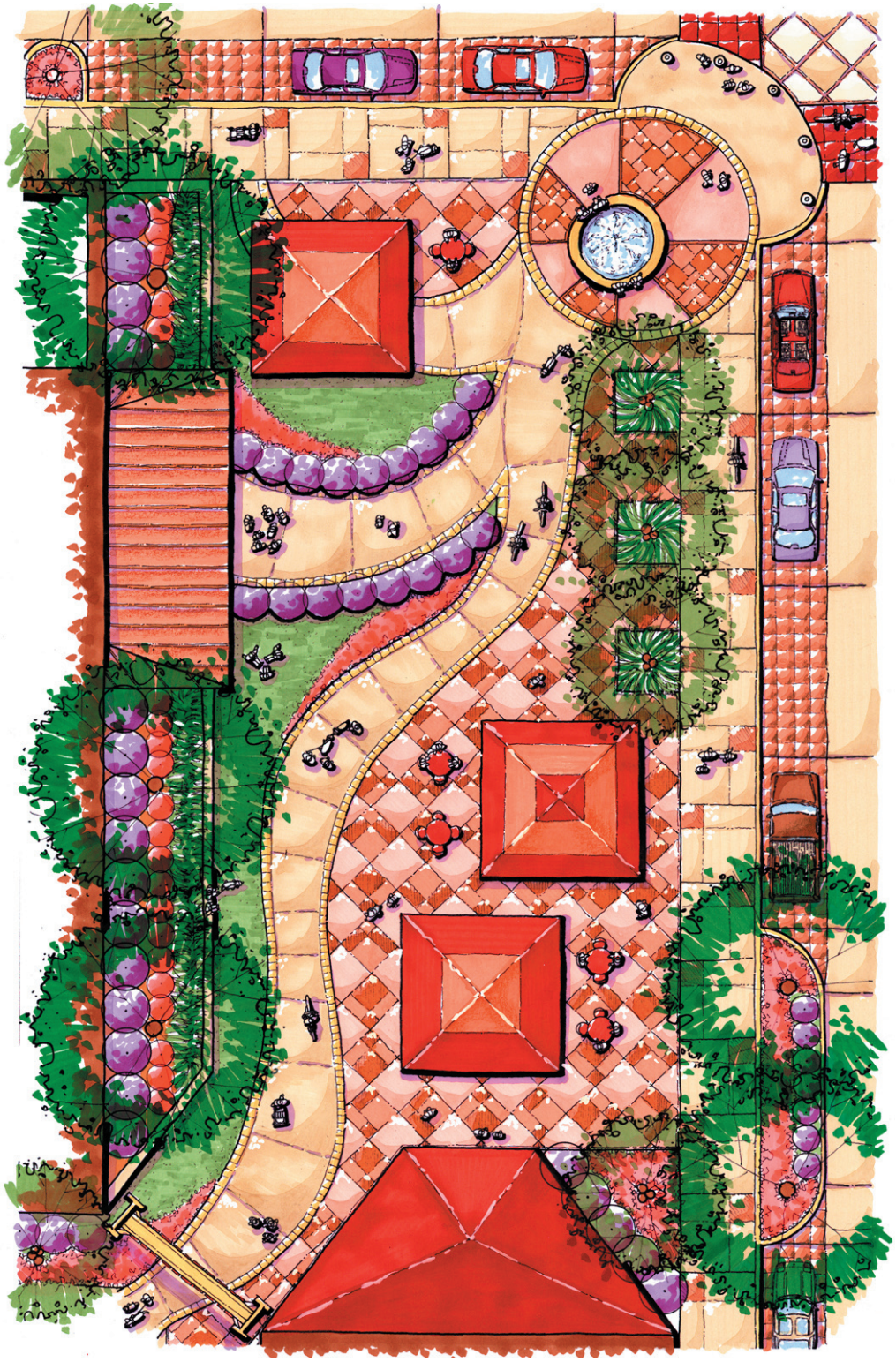


Natural Area Enlargement Plan



Amphitheatre Enlargement Plan

Amphitheatre Perspective

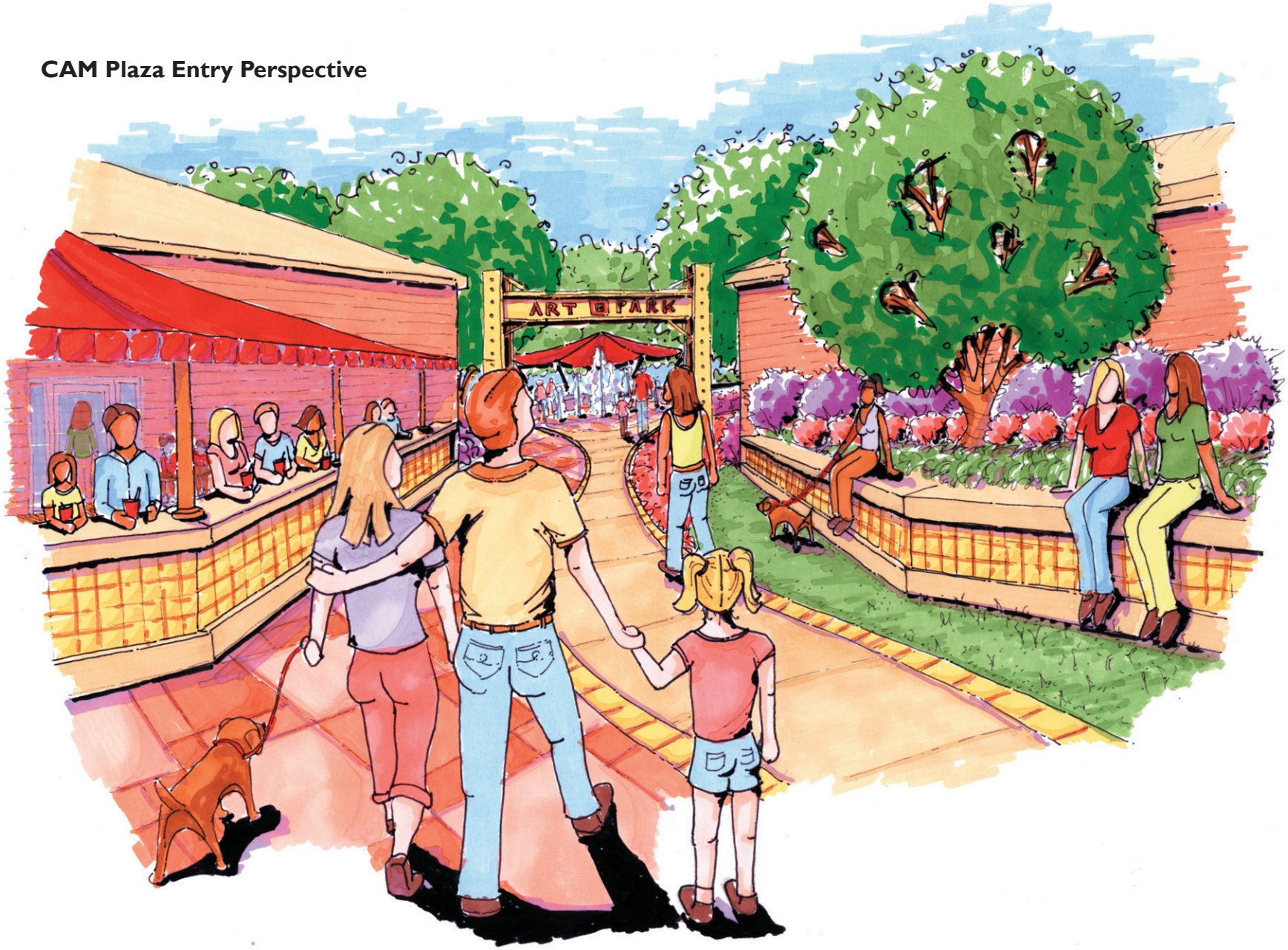


The Contemporary Art Museum Plaza

The Contemporary Art Museum Plaza was chosen as the focal area plan for the design because of its importance to the success of the entire art park. The park is somewhat hidden behind existing warehouses and proposed development so the visual and physical prominence of the CAM Plaza is a large factor in the draw for park participants. From the intersection, the program of the plaza focuses on transporting people to three main locations, including CAM's front entrance to the west, the outdoor café to the south, and the park's central gateway at the southwest corner of the plaza. From this corner of the plaza at the gateway, the entire park opens up in front of the participant; therefore the visibility of this gateway to the plaza and intersection are extremely important as well as its design. The design for the gateway used inspiration from The Depot development entry arch as a design motif for the entire park and its context.

The design for the plaza takes inspiration from a grid intersected by curving or organic forms, much like how the grid of the city is intersected by the natural forms of the park. This intersection is the key for the entire park and plaza because it contrasts its surroundings and stands out as a design feature for the city and district. The plaza itself contains many beneficial design elements and features. The fountain at the main intersection of Martin and Harrington Streets draws participants to the plaza and drowns out the noise and distraction of surrounding vehicular traffic. Throughout the plaza plentiful shade is provided through the use of both artificial and natural shade structures including tents, overhangs, and tree canopies. Vegetation is also plentiful in this heavily urban plaza to balance the rigidity of the paved ground surfaces. These paved ground surfaces are a variety of textures, colors, and forms to engage visual interest and interaction with art, sculpture and the park site.

CAM Plaza Entry Perspective



Aerial Axon of Vicinity with Master Plan Overlay

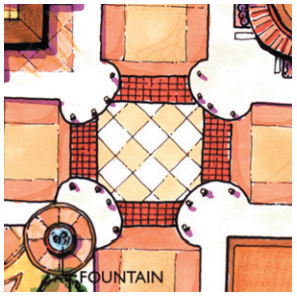
CONCLUSION

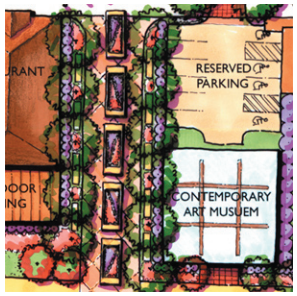
This year long project began in the early stages of the process with basic research and finished with a comprehensive site design. Through this long process a single idea blossomed into a plethora of experiences and results.

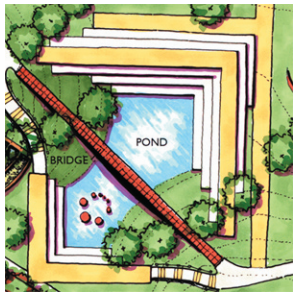
The first part of the year focused on researching historic precedents, successful design theories and practices, and preliminary site information. Primary research focused on environmental art, outdoor sculpture design, and modern landscape architecture. Then, this research narrowed down into specific case studies on sculpture parks and environmental art pieces. From this research, a set of design theories and practices were observed and recorded for later application.

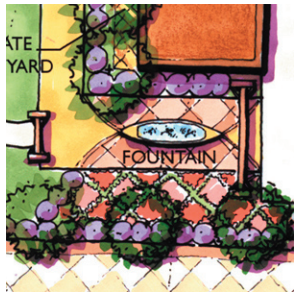
The second half of the year focused primarily on specific site design, development, and details. Following the design process, the project began by identifying clients and their needs, followed with project goals and objectives, transformed into a program and resulting concepts, and solidified into a final design solution and related details. What began as a theoretically simple and linear design process, though, resulted in the end with a complex system of cyclical design where one section of the design process would reverse progress back to an already completed section to be redesigned. While complicated, this back-and-forth method of design ensured that almost all design considerations, from historical happenings to present conditions to future planning, were taken into account, unlike most typical projects. The project involved more intensive inventories, context studies, historical analyses, site visits and other processes than was typically completed for a project and it directly resulted in a more suitable design solution.

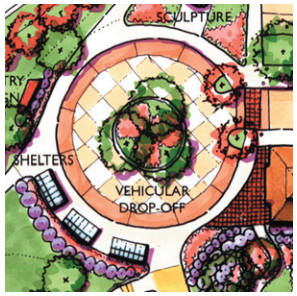
For this project, I was able to design the site and its elements in more detail than could ever be explained or illustrated in a reasonable amount of time or space. This being stated, there will always be more work that could be completed on the design or more detail better illustrated. Knowing this, I am completely satisfied with my progress and resulting products. Eventually, I would like to present this plan to the Contemporary Art Museum, once they are completed with their current renovations and fully operational. This experience was especially beneficial to the holistic comprehension of theory and design gained during education.











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Page 9 – Case Studies

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Page 10 – Case Studies

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Page 11 – Case Studies

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Page 22 – Description of Site and Context

1. Raleigh Inner-Loop - Personal Drawing with image underneath from http://maps.google.com
2. - Downtown Raleigh Districts - Personal Drawing with image underneath from http://maps.google.com

Page 23 – Description of Site and Context

1. - Downtown Raleigh Attractions - Personal Drawing with image underneath from http://maps.google.com
2. Site Aerial - http://maps.google.com

Page 24 – Inventory

1. Site Aerial - http://maps.google.com

2.,3.,4.,5.,6., and 7. Site Photos – Personal Photography

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APPENDIX A: DEFINITION OF TERMS

Art: "The conscious production or arrangement of sounds, colors, forms, movements, or other elements in a manner that affects the sense of beauty, specifically the production of the beautiful in a graphic or plastic medium" (Dictionary.com).

Conceptual Art: "A work of sculpture designed to conform to the artist's pre-conception and unrelated to site conditions or to the site's larger environment" (Clay 297). This is in direct contrast to sited art and sculpture.

Earthworks: "Art forms designed and made principally upon, from, or within the earth's surface" (Clay 297). For purposes of this research, earthworks refer to mostly large scale, outdoor art projects and sculptures that deal with the earth, landscape, and surrounding environment.

Environmental Art: A general term for art dealing with the landscape, ecology, nature, or the similar. This art can be large or small in scale and is generally not confined to indoor galleries (Clay 297). For the purposes of this research, it encompasses the terms of land art, earthworks, and some sited sculptures.

Environmental Artist: One who creates works of art relating to the landscape, ecology, nature, or the similar.

Land Art: Outdoor works of art, usually sculpture, that relate to and interact with their surrounding site and the larger environment. This form of environmental art is closely tied to landscape architecture.

Landscape: As contrasted to nature and for the purposes of this research, landscape is a man-made outdoor environment that can be a close imitation of nature or a completely artificial surrounding.

Nature: As compared to landscape and for the purposes of this research, nature is the earth and its ecology, without the interference of man.

Public Art/Sculpture: Art displayed and/or intended for visual or physical interaction with the general populace in a non-private area "with minimum restrictions on the movement of the public" (Clay 297).

Sculpture Garden: A relatively small, mostly urban, outdoor art gallery usually incorporating some to many aspects of landscape design into its display.

Sculpture Park: A "natural" (artificial or realistic) landscape, usually rural and of greater size than a sculpture garden, with the capability to exhibit large scale sculptures.

Sited Sculpture: "An art work anchored to one or more particular sites, deriving its essential form from conditions influencing that location" (Clay 297). In other words, sited sculpture is artwork that is carefully placed within its surrounding outdoor environment but that still maintains its separate form (Beardsley, Earthworks 101).

APPENDIX B: SELECTED SOURCE ANNOTATIONS

Books and Chapters in Books

Beardsley, John. Earthworks and Beyond: Contemporary Art in the Landscape. 3 Ed. New York: Cross River Press, 1998. This book is an amazing reference for the history and theory of American land art. Touching on environmental artists from Smithson and Heizer to Schwartz and Hargreaves, this book is a universal source for not only the history of earthworks, but also their associated cultural and historical relevance, both past and present. Beardsley's technique of unbiased writing presents the subjects in a way that allows the reader to draw the final conclusions. A prolific writer, Beardsley is an expert in the area of sculpture in the landscape. He has written several books and many journal articles in the area over the last several decades. I found his in-depth explanation of earthworks and their early beginnings of great interest to my research. I also found the information on Charles Jencks helpful for my case studies of earthwork projects.

Kassler, Elizabeth B. Modern Garden and the Landscape. Rev. Ed. New York: Museum of Modern Art, 1984. This book gives an interesting insight into Modernist gardens, touches on the importance of a few famous projects, and briefly but successfully explains differing cultures' relationships with nature and their resulting gardens. I particularly found her discussion of the "genius loci" of a place to be fascinating as well as her comparisons of art, man, and nature. Originally written in 1964, this 1984 revised edition, from the same author, keeps the previous text and inserts a last section on works since 1964. Although no longer "modern" exactly, this work is an important resource for the then current theory of the time and is also valuable for its historical analysis.

Pregill, Philip and Nancy Volkman. "Modern Garden Design and Site Planning." Landscapes in History: Design and Planning in the Western Tradition. New York: Van Nostrand Reinhold, 1993. 687-717. This chapter of the book discusses modernism and current trends in landscape architecture's recent history including earthwork, recreation, and park design. James Rose's dialogue of landscape as sculpture proved to be especially relevant along with the four descriptions of typical approaches to earthwork projects.

Journal Articles

Beardsley, John. "Making Waves." Landscape Architecture 88.3 (1998): 64-71, 92-97. This in-depth case study of the Garden of Cosmic Speculation by Charles Jencks proved to be a valuable asset in my case study research. Essentially a land art garden, this article points out the highlights and problems of a garden of this type and is a great theoretical prototype for my site. An expert author in the areas of sculpture and environmental art, Beardsley tends to describe, not criticize, works, but in doing so reveals some of their design flaws and inadequacies. He is the author and curator of Earthworks and Beyond: Contemporary Art in the Landscape, along with many other notable works.

Beardsley, John. "Museum Landscapes: More Space for Sculpture." Landscape Architecture 82.1 (1992): 62-65. This article points out four museum sculpture gardens: The Charles Ireland Sculpture Garden at the Birmingham Museum of Art, The Minneapolis Sculpture Garden at the Walker Art Center, Greenwood Park at the Des Moines Art Center, and the San Diego Museum of Contemporary Art, in a larger discussion of sculpture space trends at museums. Beardsley briefly summarizes the renovations occurring at these four museums to illustrate the wider expansions and creations of flexible spaces at sculpture gardens around the country. I found the information on current trends to be of interest because it demonstrates the design program necessary for current sculpture gardens. Beardsley, in his typical fashion, describes, without real criticism, current works and trends, with an eye to the greater good.

Clay, Grady. "The New Leap – Landscape Sculpture." Landscape Architecture 61.7 (1971): 296-297. I feel lucky to have found this article. Written in 1971 by the editor of LAM at the time, its not exactly classic history, but it still feels like much more of a primary source than others. It is an introduction of earthwork projects to a fresh audience in a way that clearly explains their relationship to

landscape architecture. Commenting on the good, the bad, and the ugly of this new trend in sculpture, Clay briefly but clearly states his educated views on the state of "dirt works" and the potential integration into landscape architecture.

Feinberg, Jean E. "The Museum as Garden." Landscape Architecture 79.4 (1989): 68-74. This article describes and criticizes, in detail, the creation and design of the Minneapolis Sculpture Garden at the Walker Art Center. A great resource for the original design and plan of the gardens, this article focuses on the design strengths and weaknesses of the then new site in a way refreshingly uncommon to more recent Landscape Architecture articles. Feinberg is somewhat bias, but most certainly qualified in her criticisms, as she was, at the time, the director of exhibitions at Wave Hill, a public garden and cultural center in New York.

Forgey, Benjamin. "Critic-at-Large: Rescuing the Hirshhorn Plaza." Landscape Architecture 83.11 (1993): 40-41. This article praises James Urban's redesign of the Hirshhorn plaza from a bleak and sun-baked, oversized Zen garden of the 1970s to a modern, comfortable, and appropriate sculpture garden of the present. Forgey discusses such topics as scale, shade, seating, style, and appropriateness in his description of the modifications and transformations to the site. These topics were extremely helpful for my increased understanding of sculpture garden design, both positive and negative. Forgey is an architecture critic at the Washington Post and has written other material on sculptors and sculpture.

Johnson, Jory. "Siting Sculpture." Landscape Architecture 89.4 (1999): 66-69, 94-95. This article sites several examples in its desire to show the beneficial ways in which sculpture interacts with the landscape. It mentions several sculpture gardens and parks in an attempt to illustrate how sculpture can be accessible to all and fully integrated into the landscape in a way that usual turf lawn-pedestal sculpture is not.

Dissertations and Theses

Dobbs, Mark A. "Nature Refining Art: Indianapolis Museum of Art, Indy parks Greenways, Art & Nature Park, and Central Canal Towpath." Undergraduate Landscape Architectural Thesis Ball State University, 2005. This thesis by last year's graduate discusses many issues central to my research, though his final product is much more of a literal translation of existing art than I intend to create. I may have some criticisms towards his design approach, but overall, I found a good example of a direct abstract, thorough site research, history, and analysis, relevant case studies, and inclusive design solutions.

Quitno, Todd. "The Vulcan Estate: The incorporation of environmental art in an open space design, Anderson, Ind." Undergraduate Landscape Architectural Thesis Ball State University, 1996. This thesis studies the possibility of using earthwork sculptures in the reclamation project for a public park. While the thesis contains many ideas similar to my own, it mostly depends on copying the historic works of notable environmental artists. While it does adapt them for the specific site, it establishes no real connection between the pieces.

Rice, Travis. "Fusion of the Arts." Undergraduate Landscape Architectural Thesis Ball State University, 1991. This thesis mainly analyzes the misinterpretation of modernist landscape architectural design into contemporary "banner and bollard" design, but touches on the inclusion and incorporation of public art, which is useful to my study.

Online Articles

Castro, Jan Garden. "Made for Each Other: Storm King's Vistas and Sculpture." Sculpture Magazine 18.8 (1999). International Sculpture Center. 1 Nov. 2005 <http://www.sculpture.org/documents/scmag99/oct99/king/king.shtml>. This article illustrates several examples of sited sculpture at Storm King Sculpture Park in New York. Though briefly touching on the park's history, the main part of this article discusses the theory behind the center and its design which proves to be helpful in my understanding of rural sculpture parks.

Turner, Tom. "Sculpture Gardens." Garden History. 2000. Garden Visit and Travel Guide. 29 Sept. 2005 <http://www.gardenvisit.com.html>. This complex website attempts to list garden sites all over

the world, review garden history from the beginning of time until now, and advertise the author's published works including a book and CD reference on English garden design history and styles since 1650. While wildly vast and occasionally interesting, this site has some navigational pitfalls and graphic challenges. However, I only focused on his discussion of sculptures in the garden and sculpture parks.

Websites

Contemporary Art Museum. 2005. CAM, Contemporary Art Museum. 20 Oct. 2005 <http://www.camnc.org>. This art museum's website is extremely helpful in obtaining information about the plans and progress for its new renovated location in the warehouse district of Raleigh, NC. Because the research project's site is in conjunction with and directly adjacent to the museum, the information concerning the museum's needs and desires is also very pertinent. Although the museum and its website are not yet fully functional, the information that is listed is helpful in understanding its future plans.

"Elevated Wetlands." 2000. Plastics + Art. 2 Dec. 2005 <www.elevatedwetlands.com>. This website, produced by the creator of the environmental artwork, explains the creative and physical processes behind Elevated Wetlands. I found the graphic illustrations and sections on the piece's creative history to be of particular interest for the case study section.

Sculpture Gardens and Parks Directory. 2005. International Sculpture Center. 1 Nov. 2005 <www.sculpture.org>. This directory lists sculpture gardens and parks across the world along with a short description, location, and link. I found this directory helpful in finding possible case studies across the country. The International Sculpture Center also publishes the popular trade magazine, Sculpture.

Minneapolis Sculpture Garden. 2005. Walker Art Center. 14 Oct. 2005 <http://garden.walkerart.org>. The websites of both the Walker Art Center and its Minneapolis Sculpture Garden feature a wide range of information on current events, history, and artwork. I especially found the sections on their history and future plans useful in my research history and case studies.

Nasher Sculpture Center. 2003. Nasher Sculpture Center. 14 Oct. 2005 <http://www.nashersculpturecenter.org>. This informative website lists the activities and history of the Nasher Sculpture Center. I found the section on the museum's garden and building history of particular interest.

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